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TABLE OF CONTENTS

KELLERMAN — Obituary, J. B. Ellis 41
BATES — Rust Notes for 1905 45
SACCARDO — Micromycetes Americani Novi 47
BUBAK — Neue Pilze aus Nord America 52
BESSEY — Dilophospora Alopecuri 57
SUMSTINE — Pleurotus Hollandianus Sp. Nov. 59
SUMSTINE — Note on Wynnea Americana 59
RICKER — Second Supplement to New Genera 60
KELLERMAN — Index to North American Mycology 67
KELLERMAN — Notes from Mycological Literature XVIII 80
SHEAR — American Mycological Society 87
EDITOR'S NOTES 88

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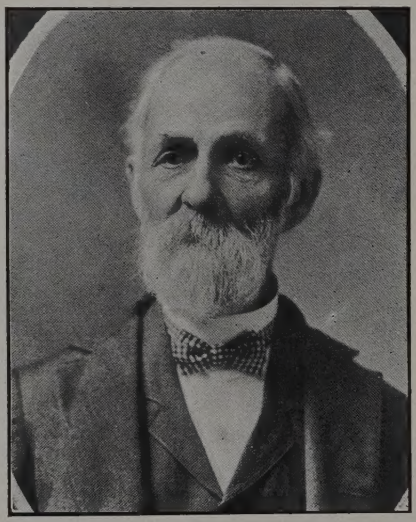

Very truly yours
J. B. Ellis

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TABLE OF CONTENTS

KELLERMAN — Obituary, J. B. Ellis 41
BATES — Rust Notes for 1905 45
SACCARDO — Micromycetes Americani Novi 47
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KELLERMAN — Index to North American Mycology 67
KELLERMAN — Notes from Mycological Literature XVIII 80
SHEAR — American Mycological Society 87
EDITOR'S NOTES 88

OBITUARY—JOB BICKNELL ELLIS.

W. A. KELLERMAN.

Mr. J. B. Ellis, one of the former editors of this Journal, passed away December 30, 1905. When the present editor proposed to publish a Journal of Mycology in 1885 Mr. Ellis heartily joined in the enterprise and agreed to furnish practically all the copy for the unpretentious periodical. Though three names are printed as editors on the title page of the first four volumes it was Mr. Ellis alone who furnished most of the articles and gave the character to the Journal. It was then, as it is now, largely taxonomic and devoted to the American Fungi. The pages record incidentally a wonderful expansion of American Mycology during the past two decades. Mr. Ellis did more than any other botanist during the period of his mycological activity toward making known the parasitic fungi of the United States. The Journal of Mycology was an avenue of publication not only for his many species; but the monographs published in the first four volumes of the Journal made it possible for many botanists to undertake the study of the parasitic species. We estimate highly the influence this exerted on the development of American Mycology. His multitudes of new species were of course not all published in this periodical — his contributions appearing in great number in the Botanical Gazette, Torrey Bulletin, American Naturalist, Pro-

ceedings of the Philadelphia Academy and elsewhere. His early work in connection with Dr. M. C. Cooke of England, a veteran still living, appeared in Grevillea. This period, 1875 to 1879, might be regarded perhaps as Mr. Ellis' apprenticeship — and surely a good foundation was laid. Subsequently the herbarium he had already built up, and the mycological library then accumulated, though not large, furnished him with the equipment for independent work. He did not make extended collecting trips over the country; but he brought together from a small area an immense number of new fungi; and specimens from young and enthusiastic collectors and incipient botanists poured in upon him. Over this he worked with great diligence. His descriptions are of course not always full, his knowledge of some things he published was scant, but who could or did do better! Pioneers can not do the critical work that is possible to the well trained student who has the advantage of all the facilities and appliances later developed. Perhaps not more to his contributions in print than to his work on exsiccata is due the impetus he gave to the study of mycology in this country for the quarter of a century during the period of his greatest activity. He began his Fungi Nova-Caesariensis about 1878, but soon changed the title to North American Fungi, and "N. A. F." can well be regarded as classic in American Mycology. A second set was begun later called Fungi Columbiani. The large number of subscribers both at home and abroad shows the high estimate placed on these exsiccata. The contributions of various young botanists over the country assisted materially of course in the issuance of so many centuries, though one needs merely to glance at the list of specimens to see what a large number Mr. Ellis collected with his own hands. Mention must be specially made of the personal assistance given by him to so many correspondents — those who were beginning the study of fungi, especially the parasitic species. Even with the pressure of the work entailed by undertaking to report on such material sent to him, never was one seeking help denied assistance; an answer was sure to come by the next mail. Recognition therefore can justly be accorded for the indirect as well as the direct part Mr. Ellis took in the development of Mycology in this country.

Great industry on his part and the activity of many persons throughout the country enabled him to accumulate a vast herbarium rich in type specimens. This was purchased a few years ago by the New York Botanical Garden.

No list will here be given of the numerous contributions published by J. B. Ellis, all the articles being fresh in the memory of the working mycologists, but special mention must be made of his important work of 793 pages and 41 full page plates bearing this self-explanatory title: The North American Pyrenomycetes, a contribution to Mycologic Botany, by J. B. Ellis and B. M. Ever-

hart, with original illustrations by F. W. Anderson; published by Ellis and Everhart, Newfield, New Jersey, 1892.

It is interesting to note the beginning of a correspondence with the mycologist Ravenel of South Carolina, which perhaps influenced him to work along the line he thereafter so conspicuously followed. It is said by one who wrote a sketch of his life a few years ago that Mr. Ellis saw by chance a notice of "Fungi Caroliniani exsiccati," the first thing of the kind ever issued in America. He at once wrote to the author of that work, and the correspondence was permanent — interrupted only by Ravenel's death. The first letter was written in 1857 and doubtless this friendship was one of the incentives to Mr. Ellis' persistent and fruitful labors in the mycological field.

Allusion has just been made to the sketch of Mr. Ellis' life, prepared by Mr. Anderson a few years ago and published in the Botanical Gazette. The latter spent much time at the home of Mr. Ellis while making the drawings for the North American Pyrenomycetes. Mr. Anderson was a most promising and enthusiastic mycologist taken away unfortunately when just beginning a career of great usefulness, and I consider it a tribute to him as well as to Mr. Ellis that I can select from his sketch of Mr. Ellis the salient points in the several following paragraphs:

J. B. Ellis was born in Potsdam, N. Y., Jan. 21, 1829. Industrious over his books when not at work on his father's farm he was prepared at the age of sixteen to teach a winter-school, for which service he received ten dollars a month and "boarded around." This doubtless well-earned salary was paid partly in cash (five dollars) and partly in grain, the last of the grain being turned over to him, says Mr. Anderson, just twenty years afterward. In June, 1851, Mr. Ellis graduated from Union College. While a student here he paid some attention to botany. He taught at various schools, but no positon seemed to be very permanent. His interest in plants continued unabated. In 1853, while a classical teacher at Bartlett's Boarding School in Poughkeepsie during two years, he collected plants on Saturdays and, said he, "on Sunday, too, if he could steal away, for Mr. Bartlett was very pious." In the fall of 1856 he became principal of the Canton Academy and in 1863 went into one of the public schools of Pottsdam village. During the war of the rebellion he was in the United States Navy. At the close of the war he settled at Newfield, New Jersey, where he resided until his death.

It was not, however, until 1878 that Mr. Ellis began devoting his whole time to the study of Fungi. With characteristic modesty he refrained from attending scientific meetings, so that practically all of the botanists and many amateurs, though they know his name as of an old friend, never met him personally. Mr. Anderson says that with considerable quiet humor he tells how that when he was teaching at Mr. Bartlett's School, he deter-

mined on three different occasions to go down on the boat to New York and stay there several days to "do the city" and each time returned home on the first train he could get, suffering with a violent headache caused by the excitement of the trip and the noisy bustle of the city. In spite of ill health he attained an age not far from three score and ten. He was industrious and studious; a good linguist as well as botanist; of sensitive nature; always practiced the strictest simplicity and regularity in his daily life.

The hundreds of new species by Ellis, very many tagged *E. & E.*, also many by *E. & M., E. & Hk., E. & Hol., E. & Hals., E. & Barth., E. & Dear., E. & Fairm., E. & Morg., E. & Lang., E. & K.*, also still other initials, testify to Mr. Ellis' activity. Then the long list of species designated as *"ellisii"* and *"ellisiana"* by other botanists witnesses the high appreciation of his services to systematic mycology. The genus "Ellisiella" was also named in his honor by Saccardo. Dr. Farlow's bibliography on North American Fungi shows a long list of articles by J. B. Ellis, also many signed Ellis & Everhart, Ellis & Harkness, Ellis & Holway, Ellis & Kellerman, Ellis & Martin; more recently still other names have been in the same manner associated. Mr. Ellis was also honored by important foreign societies, for example in July, 1878, he was elected a corresponding member of the Academy of Natural Sciences of Philadelphia. In August, 1882, he was elected a corresponding member of the Cryptogamic Society of Scotland and in December of the same year was elected a corresponding member of "Die Kaiserlich-Königliche Zoologisch-Botanische Gessellschaft in Wien."

Mr. Wm. C. Stevenson, Jr., an intimate and appreciative friend of Mr. Ellis for many years, has kindly furnished me the following statement:

"The first time I had the pleasure of meeting Mr. J. B. Ellis was in April, 1873. We previously had corresponded on Mycological subjects and exchanged some few specimens, but at the time mentioned being in the neighborhood of Newfield took the opportunity of calling on him. I received a warm cordial welcome and was soon in his study examining some of his recent finds. The limited time at my disposal passed only too rapidly, but it was the beginning of a close, personal friendship, which lasted until his death. It grew stronger with each recurring year, and I had an opportunity of learning his nature, such as few of his other correspondents had.

His kind, genial open heartedness was always a strong point in his character, and no true student of the Fungi ever had cause for regret if he acted with a tithe of the confidence and fairness which was shown by him.

He was willing to divide honors in his public work, which while it for the time placed another in an equal light with himself, yet in the end only tended to brighten and enhance his own standing among the leaders in his chosen field. He certainly acted on the principle that it was "better to give than receive," and in the end it bore fruit to his credit far above what he could have expected.

The many tramps we had together in the fields and woods around Newfield were particularly gratifying to me, as I had on such occasions opportunity to see how unbiased and open he was in his thoughts and dealings. They were, so to speak, academic treats to me, the pupil learning from the master who was always patient and willing to impart his knowledge and overlook shortcomings on the part of his companion. In 1884 the British Association for the Advancement of Science met in Canada, and the American Association in Philadelphia. It was arranged that a joint meeting of the botanists of the two associations should be held at the Academy of Natural Sciences in Philadelphia on the evening of September 8. Mr. Ellis was present at that joint meeting. Here for the first time he met scores of workers in the botanical and mycological fields whom he had known by name and through correspondence. It was a great treat to him, and he often rehearsed to me the pleasure that evening gave to him. It seemed to add new spirit and enthusiasm to his future work and plans.

His visits to my home were looked forward to by me as special treats, and my expectations were always more than realized. His strong cardinal points as I saw and knew him were honesty and charity in the fullest degree."

Very fitly this short account of the life and work of Mr. Ellis may conclude with a reference to his devoted wife, who ceased her work some years ago. The statement I take entire from Science, Aug. 11, 1899:

In the death of Mrs. Arvilla J. Ellis, of Newfield, New Jersey, on July 18, 1899, there passed away another of those patient workers to whose fidelity science owes so much. Not known as a botanist, not a member of a scientific society, not the author of a scientific paper, she nevertheless contributed more to the advancement of our knowledge of the fungi than many of those whose names are frequently appended to scientific articles in the journals. Many years ago she began aiding her husband, Mr. J. B. Ellis, in the arduous labor of preparing and mounting the specimens for the 'North American Fungi' and later for the 'Fungi Columbiani,' and with her own hands bound the books in which these were delivered to subscribers. Had it not been for her help the first of these great distributions — numbering 3,600 specimens — would have been suspended early in its history, and the second — numbering 1,400 specimens — would never have come into existence. To her deft fingers, which wrought so patiently, botanical science is indebted for the more than two hundred thousand specimens of the fungi which Mr. Ellis distributed to the botanists of the world.

RUST NOTES FOR 1905.

J. M. BATES.

Finding the aecidium of Puccinia subnitens growing on several species of Chenopodiaceae, Cruciferae, and on Cleome serrulata, I determined to test it on Monolepis Nuttalliana. The culture was made April 6. May 12 several ripe aecidia were found, but many more on Roripa sinuata which grew with it and on Bursa bursa-pastoris. It is very nearly immune. Cultures made on Sophia incisa showed more affiliation than those on Bursa, some of which failed entirely. Lepidium apetalum shows itself a

good host. Culture on Chenopodium hybridum failed; probably made too late. It has been made earlier this year.

April 18th I brought down from Orleans Puccinia poculiformis on Elymus canadensis to test on a hedge of Berberis vulgaris. It looked very strong, but when the aecidia appeared, I could find no more near the culture than fifty feet away, and but little more than the year before without culture. Nor could I find any such Puccinia growing within several blocks of the hedge, though abundant on Hordeum jubatum and other hosts a mile south.

May 14th I made a culture of Puccinia amphigena, Calamovilfa longifolia, on the only plant of Smilax hispida found in three years, in this region. It grows a mile away from the grass, and, the year before, had no æcidium on it. The winter before my experiment, it had been cut to the ground. The fresh shoots were therefore in fine condition for this late experiment. I had no chance to view it until June 10, when I found the whole plant covered with æcidia. As the Puccinia grows in abundance miles away from any species of Smilax in Cherry Co. there can be no doubt that it has the same faculty as Puccinia poculiformis of living over without the first stage. The appearance of this rust at the late date of May 14 is specially interesting. I hope to test it much earlier this year.

June 14, three miles west of Red Cloud, I found one plant of Oenothera biennis, about 15 inches high, with ripe æcidia *covering the under side* of the lowest leaves and unripe ones following the leaves as they developed to the very summit. As Aecidium Peckii comes in distinct sori, I saw that I had something new, and gathered all that was fit. Looking then for the clue, I found Carex Pennsylvanica growing all around it and uredo in abundance within three feet, growing scarcer as you departed from the source, until at four feet there was none at all. The patch of grass land on which it grew had been burned over, the previous winter, so that I found No. III, though of course some of it had escaped. I collected a set of the uredo. June 20 I was in Sargent, Custer Co., and found the same rust on Oenothera biennis, Oe. sinuata and Carex Pennsylvanica, in vacant town lots. Four miles out, I found it again, and the next day in Arcadia again. Dr. Bessey says he found it once in Iowa on Oe. biennis and Prof. Holway reports the same. Nov. 3, I was able to collect a set of III. on Carex Pennsylvanica at Red Cloud, and since then have made collections of same at Sargent. The III. looks like a pale weak uredo, but Prof. Holway reports it as a good teleutosporic form and a new species.

I have given these details, because it seems to me that the relationship between the two or three hosts is abundantly established. Nevertheless "to make assurance doubly sure," I have

sent material to Dr. Arthur and have made several cultures myself on different hosts of the Onagraceæ.

Red Cloud, Nebraska.

MICROMYCETES AMERICANI NOVI.

Lecti a cll. Doctoribus C. E. Fairman et S. Bonansea Auctore P. A. Saccardo.

Fungilli aliquot novi, qui hic describuntur, lecti et missi fuerunt a viris prælaudatis. Cl. Doct. Charles E. Fairman eos decerpsit prope Lyndonville, Orleans County, N. Y., non longe a lacu Ontario et notis nonnullis declaravit. Cl. Doct. Silvius Bonansea Italus, sed nunc Mexici incola, mycetes suos collegit in Monte del Disierto in Tenancingo, in quo districtu zona temperata calidae jungitur.

I.

MYCETES BOREALI-AMERICANI A DOCT. FAIRMAN LECTI

A. Teleomycetae.

1. HYPOXYLON PUMILIO Sacc. et Fairm. sp. n. — Minutum, extus e roseo isabellinum, breviter effusum, rarius in acervulos exiguos 1 mm. latos limitatum, plerumque 4-6 mm. long. 2 mm. lat., applanatum v. vix convexulum; peritheciis unistratosis perexiguis, globulosis vix 200 μ diam., medietate superiori discretis, hinc prominulis, extus tenuiter roseo-pruinosulis, intus nigris, ostiolo brevissimo lato obtuso, minutissime pertuso, fere deterso hinc nigricante, 90-100 μ diam., ascis cylindricis deorsum sensim tenuato-stipitatis, apice rotundatis, 130 x 6-8, parte sporif. 70-80 μ longa, octosporis; paraphysibus filiformibus ascos multo superantibus; sporidiis oblique monostichis, ovato-oblongis, inaequilateris, 12-14 x 5.5-6, fuligineis, crasse 2 guttatis, rarius guttulis inaequalibus 3-4 foetis.

Hab. in ligno putri in silvis pr. Lyndonville, N. Y., Sept. 1905.

Nonnihil affine *H. nectriodeo* Sacc. et Fr. et *H. nectroidi* Speg. a quibis mox dignoscitur peritheciis applanato-effusis, multo minoribus. Stroma, cui perithecia insituntur est maculiforme, pariter roseo-isabellinum. Species pertinent ad subgenus *Placoxylon* Sect. *a.*

2. XYLARIA BREVIPES Sacc. et Fairm. sp. n. — Stromatibus solitariis v. rarius binatis, lignicolis, cylindraceis, basi rotundatis paullo crassioribus, sursum sensim tenuatis, brevissime stipitatis, ob ostiola acutiuscula vix prominula asperulis, glabris, opace nigris, intus candidis, totis 2.5 cm. longis, 3 mm. diam.; stipite crassiusculo, cylindraceo, longitrorsum sulcato, glabro, nigro, 1-3

mm. long., 1-1.5 mm. cr., peritheciis immersis, globosis, monostichis, 250-300 μ diam., nigris; ascis cylindraceis longe sensimque tenuato-stipitatis parte sporif. 70 x 5.5-6; sporidiis recte v. oblique monostichis, ellipsoideis, inaequilateris, utrinque obtusatis, 11-12 x 4-4.5, fuligineis.

Hab. ad truncos dejectos pr. Lyndonville, N. Y., 1905.

Pertinet ad subgen. *Xyloglossa* Sect. *b.* Habitu aliquid accedit ad *X. corniformem* et *X. cupressiformem* sed characteribus variis recedit.

3. Erostella transversa Sacc. et Fairm. sp. n. — Peritheciis inter librum et periderma evolutis et rima transversali crassiuscule marginata circ. 2 mm. longa erumpentibus sed non emergentibus, in quoque acervulo 4-6, globulosis, 500-750μ diam., peridermate secedente subliberis et saepe collapso-concavis, glabris, nigris, collis brevissimis, ostiolis obtusis; ascis clavatis, subsessilibus sed deorsum tenuatis, apice rotundatis, 44-48 x 5.5-6, octosporis; paraphysibus filiformibus, asco multo longioribus minute guttulosis; sporidiis distichis allantoideis, leviter curvis 8-9 x 2.5, perfecte hyalinis.

Hab. in cortice *Betulae* sp. in silvis pr. Lyndonville, Sept. 1905.

Ab Erostella vasculosa Sacc. et E. ambigua (Berl.) Sacc. differt sporidiis brevioribus, angustoribus, peritheciis rimose transverseque erumpentibus, etc. Cl. Berlese anno 1900 (Ic. fung. III, p. 9) instituit gen. *Togninia* quod essentialiter congruit cum subgen. Erostella (Calosphaeriae) a me condito anno 1882 (Syll. I, p. 101) quod ergo praeferri debet.

4. Rosellina elaeospora Sacc. et Fairm. sp. n. — Peritheciis late et dense gregariis, superficialibus, globosis, glabris, circ. $\frac{1}{2}$ mm. diam., papillatis, senio papilla amissa perforatis, carbonaceis, nigris; ascis tereti-elongatis, deorsum tenuato-stipitatis, 60 x 7-8 μ octosporis, filiformi-paraphysatis; sporidiis oblique monostichis, elliptico-navicularibus, inaequilateris, utrinque obtusatis, 13-15 x 4.5-5 μ, rarius usque ad 16 x 5.6 μ, fumoso-olivaceis, 2-3 guttulatis v. granulosis.

Hab. ad truncos putrescentes dejectos in silvis pr. Lyndonville, N. Y., Sept. 1905.

Praesertim sporidiis fumoso-olivaceis dignoscitur.

5. Otthiella Fairmani Sacc. sp. n. — Peritheciis in acervulos minutos, suborbiculares, 1 mm. diam., erumpenti-superficialibus, in quoque acervulo paucis (5-7), globosis, subinde paullulum connatis, non v. obtuse papillatis, nigris, glabris, 400 μ diam.; ascis tereti-elongatis, utrinque tenuatis, subsessilibus, 110-130 x 13-15μ, octosporis; paraphysibus filiformibus, copiosis; sporidiis distichis, oblongo-fusoideis, curvulis, utrinque acutulis, media septatis et denique constritulis, 30-32 x 5.5-6 μ, hyalinis v. dilutissime ochraceis, articulo super. saepe paullo crassiore.

Hab. ad cortices dejectos in silvis pr. Lyndonville, N. Y., 1905.

A ceteris generis specieibus omnino diversa.

6. Leptospora sparsa Sacc. et Fairm. sp. n. — Peritheciis superficialibus, sparsis, globulosis, carbonaceis, nigris, glabris, 300-400 μ diam., breviter obtusule papillatis; ascis elongato-cylindraceis basi sensim tenuato-substipitatis, 112-120 x 8-9 μ, octosporis, apice paullulum tenuatis, rotundatisque; sporidiis distichis, cylindraceis sursum curvatis, 33 x 4 μ, continuis, hyalinis, eguttulatis.

Hab. ad ligna putrida in silvis pr. Lyndonville, N. Y., 1905.

Peritheciis laxe sparsis, glabris, minoribus, non pachydermaticis, sporidiis non nucleatis, etc., a *Lept. spermoide* aliisque distinguenda species.

7. Leptosphaeria perplexa Sacc. et Fairm. sp. n. — Peritheciis gregariis, epidermide initio velatis, mox liberis, globosis, basi applanatis, nigris, nitidulis, 250-300 μ diam., ostiolo conico-acuto, tertiam perithecii partem subaequante praeditis, vetustis submuticis; ascis cylindraceis, breve stipitatis, filiformi-paraphysatis, 85-90 x 10-11 μ, octosporis; sporidiis breve fusoideis, utrinque acutulis, curvulis, 3-septatis, non v. vix constrictis, 22-25 x 5-6 μ flavido olivaceis.

Hab. in caulibus emortuis *Solidaginis* sp., pr. Lyndonville, N. Y., Sept. 1905.

Exemplaria in Boltonia forte eandem speciem sistunt, sed senescentia. A typica *Lept. doliolo* (in Angelica, etc.) differt peritheciis fere dimidio minoribus et ostiolis typice longioribus et acutioribus. Exemplaria in Dipsaco apud Rehm Ascom. n. 194 potius hanc speciem quam *Lept. doliolum* spectant.

8. Ceratostoma Fairmani Sacc. sp. n. — Peritheciis late et laxe gregariis, ligno putri molli fere totis immersis, globulosis, 0.4-0.5 mm. diam., nigris, glabris, rostellatis; rostello cylindraceo-acutiusculo, 500 x 100μ, nitidulo, levissime longitrorsum sulcato; ascis fusoideo-clavatis, subsessilibus, deorsum sensim tenuatis obtusisque, apice quoque leviter tenuatis obtusisque, octosporis, 19-22 x 8-8.5, aparaphysatis; sporidiis oblique monostichis v. subdistichis, ellipsoideis, 7 x 3-3.5 μ, e fronte rectis, e latere curvis, olivaceis, inaequaliter 1-3-guttulatis.

Hab. in truncis putridis pr. Lyndonville, N. Y., Oct. 1905.

Affine *C. avocettae*, a quo differt ascis subfusoideis, aparaphysatis, sessilibus, sporidiis brevioribus, etc.

B. Deuteromycetae.

9. Micropera ampelina Sacc. et Fairm. sp. n. — Pycnidiis sparsis v. seriatis, erumpenti-superficialibus inaequaliter globosis, astomis, ceraceo-membranaceis, olivaceis, albo-furfura-

ceis, 700 μ diam., basi stipitiformi crassa, 400 μ longa immersa praeditis, intus albidis farctis, excipulo minute celluloso, strato proligero crasso dilute olivaceo; sporulis tereti-fusoideis, curvis, utrinque obtusulis, 28-30 x 7.5-8 μ farctis, hyalinis; basidiis bacillaribus 15 x 2.5, hyalinis.

Hab. in ramulis nondum emortuis *Vitis viniferae*, Ridgway, Orleans Co., N. Y., Aug. 1904.

A ceteris generis speciebus probe distincta. Furfur a granulis crystallinis refrangentibus constat. Sporulae initio ellipsoideae rectiusculae, 10-11 x 4-5 μ.

10. Verticillium discisedum Sacc. et Fairm. sp. n. — Minutissimum, confluendo effusum pruinam album maculiformem in *Lachneae* disco fingens; hyphis sterilibus repentibus, parcis, fertilibus seu conidiophoris brevibus, 50-80 x 4 μ, plerumque cedo 1-septatis, sursum trifidis, ramis tereti-fusoideis apice ramulos seu basidia verticillato terna v. quaterna cuspidata, racpe curvula, 15-20 x 3 μ, gerentibus; conidiis obovoideis, majusculis, continuis, hyalinis, eguttatis, 8.5-9 x 5.5-6, in basidiorum apice solitariis.

Hab. in disco *Lachneae hemisphaericae*, Lyndonville, N. Y., 1905.

Affine *Verticillia epimyceti* sed colore albo, conidiis majoribus differt.

11. Helminthosporium orthospermum Sacc. et Fairm. sp. n. — Late effusum tenuiter, velutinum, opace nigrum; hyphis sterilibus repentibus parcis; fertilibus seu conidiophoris erectis, simplicibus, interdum fasciculatis, rectis, 3-4-septatis, non contrictis, 50-60 x 5 μ, fuligineis; conidiis cylindraceis, apice rotundatis, basi ima conico-truncatis, rectis, 60-80 x 10-12, rarius usque ad 110 μ longis, 12-14 septatis, non constrictis, septis binis summis approximatis, fuligineis.

Hab. in ligno putrescente (quercino?), Lyndonville, N. Y., Julio, 1905.

Subaffine *Helm. folliculato* sed distinctissimum conidiophoris multo brevioribus et conidiis multo longioribus.

II.

Mycetes Mexicana a Doct. S. Bonansea lecti.

A. Teleomycetae.

Bonanseja Sacc. n. gen. (Etym. a cl. doct. Silvio Bonansea fungi detectore.) — Ascomata epidermide tecta dein erumpenti-subsuperficialia, disciformia, ceracea (brunnea), disco mox aperto, applanato; excipulo brevissimo obsolete prosenchymatico. Asci cylindracei, paraphysati, octospori. Sporidia sphaeroidea hyalina, nucleata, dein brunnea.

Gen. *Stictophacidio* Rehm affine sed praecipue sporidiis globosis distinguendum. Est quasi *Pseudopeziza* Sphaero-phaeospora.

12. Bonansea Mexicana Sacc. sp. n. — Ascomatibus epiphyllis, secus nervos seriatis et interdum confluentibus, rimose erumpentibus et peridermide bullata exalbata tectis v. cinctis, disciformi-applanatis, 400-600 μ diam., tenuissime marginatis, ambitu circulari-angulosis, umbrinis, ceraceit; ascis cylindraceis rarius cylindrico-clavulatis, 100 x 8 v. 100 x 11 (si clavulatis deorsum sensim tenuatis, parte sporif. 50-60 μ longa, apice obtusis, octosporis, paraphysibus bacillaribus, hyaliuis, 2-3 μ cr., continuis, simplicibus; sporidiis typice monostichis, rarius subdistichis, globosis, 7-8 μ diam, initio hyalinis, dein brunneis, 1-raro 2-nucleatis, levibus.

Hab. in foliis languidis v. emortuis *Anonae cherimoliae*, Tenancingo, Mex., 1905.

Excipulum tenuissimum rufo-melleum, granulis crystallinis copiosis asperulatum.

B. Deuteromycetae.

13. Phyllosticta consors Sacc. sp. n. — Pycnidiis hypophyllis, raro et epipylls, n maculis, *Phleosporae Mori* hinc inde dense aggregatis, globulosis, prominulis, 70-80 μ diam., ostiolo exiguo impresso; sporulis ellipsoideo-oblongis, saepe curvulis, 4-4.5 x 2-2.1 μ, hyalinis, minutissime 2-guttulatis.

Hab. in maculis ochraceo-brunneis *Phleosporae Mori*, ad folia *Mori albae* cultae, Tenancingo, Mex., No. 1905.

14. Hendersonia Mexicana Sacc. sp. n. — Maculis minutis, epiphyllis, subinde paullulum elevatis, nigricantibus non v. vix discolori-marginatis, circ. 1 mm. diam.; pycnidiis subhemisphaericis, epidermide velatis sed prominulis, 140-160 μ diam., subastomis; contextu minute celluloso, fuliginco; sporulis teretioblongis utrinque obtuse rotundatis, 3-septatis, ad septa constrictis, 12-14 x 5.5-7 μ, fuligineis; basidiis obsoletis.

Hab. in foliis languidis *Perseae gratissimae* vulgo *Aguacate*, Tenancingo, Mex., Nov. 1905.

Ad subgen. *Phyllohendersoniam* spectat. Septa manifestissima.

15. Gloeosporium apiosporium Sacc. sp. n. — Maculis angulosis v. subcircularibus, amphigenis, brunneo-alutaceis, 6-8 mm. diam., saepe confluentibus, nervis obscuratis limitatis; acervulis plerumque hypophyllis, innatis, creberrimis, punctiformibus, brunneis; conidiis obpiriformibus, apice rotundatis, 8 x 2.5 μ, crasse 1-2-guttatis, sessilibus, in cirros filiformes, tortuosos, copiosissimos, alutaceos demum totas maculas obtegentes protrusis.

Hab. in foliis languidis *Arctostaphyli tomentosae* vulgo *Madrono de arbol*, in territorio Mexici, Nov. 1905.

Gl. alpino affine. Basidia nulla v. brevissima.

16. Cercospora coleroides Sacc. sp. n. — Maculis amphigenis, subcircularibus, 3-5 mm. diam., subgriseis linea atrobrunnea cinctis; interdum confluentibus; caespitulis amphigenis laxe gregariis punctiformibus, artis 200 μ diam., hypostromate celluloso, pulvinato, fuligineo, erumpente; conidiophoris e superficie hypostromatis orientibus dense stipatis, paliformibus, simplicibus, continuis, olivaceis, 40-50 x 5.5-6, apice truncatulis; conidiis in apice conidiophori solitariis, bacillaribus, rectis v. curvis, basi truncatis, olivaceis, brevioribus, 90-100 x 5-6 μ et 3-4-septatis, longioribus 140-150 x 5-6 μ et 10-12 septatis, non constrictis, septis superioribus minus evidentibus, articulis plerumque utrinque 1-guttulatis.

Hab. in foliis languidis *Casimiroae edulis* vulgo *Zapote blanco*, Tenancingo, Mex., Nov. 1905.

Ob caespitulos punctiformes conidiis radiantibus conspersos *Coleroam* in mentem revocat. Ob hypostrome conspicuum haec species et aliae consimiles ad *Exosporium* nutant.

Patavii ex Institute botanico Universitatis. XXX Januarii MCMVI.

EINIGE NEUE PILZE AUS NORD AMERICA.

VON PROF. DR. FR. BUBAK, TABOR IN BOEHMEN.

1. Puccinia Ptilosiae Bubàk n. sp. — Teleutosporenlager rundlich oder elliptisch, auf beiden Blattseiten, hauptsächlich aber oberseits, anfangs bedeckt, später ganz nackt, $\frac{1}{8}$-1 mm. breit, rundlich oder elliptisch, dunkel kastanienbraun, staubig. Teleutosporen einförmig, ellipsoidisch, seltener länglich, 33-48μ lang, 22-29μ breit (selten nur 18μ breit), an beiden Enden abgerundet oder wenig verjüngt, in der Mitte schwach eingeschnürrt, mit brauner, 2.5μ dicker, deutlich warziger Membran. Warzen circa 1μ dick, ihr Abstand 1-2μ. Keimporus der oberen Zelle scheitelständig oder um $\frac{1}{3}$ herabgerückt, jener der Basalzelle in der unteren $\frac{1}{3}$ liegend. Stiel kurz, hyalin, brüchig.

Kalifornien: Amador County auf Blättern von *Ptilosia lactucina*, am 29, VII, 1896, leg. Hansen.

Diese neu beschriebene Puccinia-Art, steht der *Puccinia Picridis strigosae* Sydow (Monographia Uredinearum I, p. 131) am nächsten ist von derselben aber durch viel schmälere Teleutosporen verschieden. Auch von *Pucc. Picridis* Haszl. ist sie weit verschieden.

Puccinia Ptilosiae Bubák ist wohl eine Brachypuccinia, wie Pucc. Picridis. Auf den mir vorliegenden Exsiccaten konnte ich aber keine Uredosporen auffinden.

2. Phyllosticta convexula Bubák n. sp. — Flecken bräunlich, unbestimmt oder fehlend; Fruchtgehäuse, unterseits, zwischen den dicht stehenden Perithecien von Sphaerella con-

vexula (Schw.) Thüm. zerstreut, anfangs subepidermal, später mit kurz konischen Scheitel hervorbrechend, kuglig, wenig abgeflacht, endlich breit geöffnet, 60-100μ breit, schwarz, von gelbbraunem, undeutlich zelligem, unten dunklerem Gewebe.

Sporen bacillenartig, 1.5-2μ lang, 1μ dick, hyalin auf kurzen, stäbchenförmigen, hyalinen Sporenträgern.

Missouri: Emma, Salina Co. auf Blättern von *Carya tomentosa*, leg. C. H. Demetrio, misit cl. Dr. O. Pazschke.

Phyllosticta convexulla m. ist von allen Carya- und Juglans-Phyllosticten durch die winzigen Sporen verschieden. Sie kommt in Gesellschaft mit Sphaerella convexula (Schw.) Thümen, wesshalb sie auch "convexula" genannt wurde.

3. Phoma Lophanthi Bubák. *Septoria Lophanthi* Ellis in schedis. Pykniden zerstreut, linsenförmig zusammengedrückt, subepidermal, später mit dem Scheitel hervorbrechend, 200-300μ breit, schwarz, mit 10-15μ dicken Wänden, von parenchymatischem, schwarzbraunem Gewebe. Sporen zylindrisch, 4.5-9μ lang, 1.5-2μ breit, gerade oder öfters gekrümmt, mit zwei polaren Oeltropfen, hyalin. Sporenträger papillenförmig, hyalin.

Ohio: Amanda, Fairfield, Co., auf toten Stengeln von *Lophanthus nepetoides*, leg. W. A. Kellerman, misit O. Pazschke.

Der Pilz wurde mir von Pazschke unter dem Namen "Septoria Lophanthi Ellis spec. in schedis" geschickt.

Die Sporen sind aber für eine Septoria, rechte Rhabdospora zu kurz und da auch gerade Sporen zahlreich vorkommen, so halte ich den Pilz eher für eine Phoma. Auch die zwei endständigen Oeltropfen weisen auf die Gattung Phoma hin.

Ich bemerke, dass ich nirgends in der Litteratur Septoria Lophanthi Ellis gefunden habe. *Septoria Lophanthi* Winter ist gänzlich verschieden.

4. Phomopsis missouriensis Bubák n. sp. — Pykniden zerstreut, subepidermal, mit kurzem Schnabel hervorbrechend, sonst von der geschwärzten epidermis bedeckt, anfangs linsenförmig, später flach konisch, bis $\frac{1}{4}$ mm. breit, mit sehr dicken (bis 60μ) Wänden, innen von gelbbraunem, aussen dunkelbraunem, parenchymatischem Gewebe. Sporen von zweierlei Art: 1) spindelförmig, 9-13μ lang, 2.5-3.5μ dick, beiderseits spitzig, oft mit zweiteiligem (ohne Querwand! Inhalte; 2.) Stäbchenförmig, gerade oder gekrümmt, bis 20μ lang, 1.5-2μ dick, aber seltener als die ersteren entwickelt. Sporenträger fadenförmig, bis 18μ lang, 1.5μ dick, unten strauchartig verbunden, hyalin.

Missouri: Emma, Salina Co., auf toten Stengeln von *Asclepias verticillata*, leg. C. H. Demetrio, misit O. Pazschke.

Die vorliegende neue Art gehört, wie alle anderen Species dieser Gattung als konidienform zu irgend einer Diaporthe, vielleicht zu *Diaporthe Asclepiadis* Ell. et. Ev.

Was die Abtrennung dieser Gattung von Phoma betrifft, so

verweise ich auf meine Abhandlung in Oesterr. botan. Zeitschrift, 1905, Nr. 2, p. 78.

5. Haplosporella missouriensis Bubák n. sp. — Stromata über die Aeste in weitläufigen Gruppen, anfangs subepidermal, später hervorbrechend und nur an den Seiten bedeckt, flach polsterförmig, $\frac{1}{3}$-$\frac{2}{3}$ mm. breit, schwarz, mehr oder weniger glänzend, innen von hellgelblichem, aussen dunkelbraunem, parenchymatischem, ziemlich dickzelligem Gewebe. Kammern nicht zahlreich, einreihig, vollkommen, manchmal auch unvollkommen, unregelmässig. Sporen länglich oder zylindrisch, oft bohnenförmig gebogen, oder in der Mitte biskuitartig zusammengezogen, 13-18μ lang, 4.5-7μ breit, kastanienbraun, mit einem länglichen, in der Mitte der Spore liegenden Oeltropfel. Sporenträger fadenförmig, hin und her gebogen, 76-80μ lang, 2μ breit, am Scheitel gewöhnlich erweitert, hyalin.

Missouri: Emma, Salina Co., auf toten Aestchen von *Persica vulgaris*, leg C. H. Demetrio, misit O. Pazschke.

Dieser neue Pilz kommt in Gesellschaft mit *Sphaeropsis demersa* (Bon.) Sacc. von welcher er aber total verschieden ist.

6. Phleospora Hanseni Bubák n. sp. — Fruchtgehäuse oberseits, zerstreut, ohne Fleckenbildung, 150-220μ breit, von der ziemlich stark gewölbten Epidermis bedeckt, durch dieselbe durchschimmernd, besonders im Umfange schwarz konturiert, anfangs geschlossen später gewöhnlich deckelartig aufspringend und breit geöffnet, von hellen oder gelblichen, oben hellgelbbraunen, am Rande braunen, dickwändigen, lockeren Hyphen gebildet, welche oben keulenförmig verdickt sind und am Rande der Oeffnung paraphysenartige Gruppen bilden. Sporen stark sichelförmig bis halbkreisförmig gebogen, seltener gerade, 20-35μ lang, 2.5-3μ breit, zu beiden Enden allmählich verjüngt, einzellig oder mit einer deutlichen Querwand, hyalin auf papillenförmigen, hyalinen Sporenträgern.

Californien: Pine Grove, Amador Co., auf lebenden Blättern von Quercus Morehus, am 19. XII, 1894, leg. Hansen.

Ich stelle diesen interessanten Pilz in die Gattung Pleospora, da keine eigentliche Pyknide ausgebildet ist. Der basale Teil des Hymeniums ist oft cisternenartig vertieft, so dass zwei über einander liegende und sporifizierende Räume gebildet werden.

7. Rhabdospora Demetriana Bubák n. sp. — Pykniden auf silbergrauen, länglichen Flecken gruppiert oder ohne Fleckenbildung über die Stengel und Aesten verteilt, subepidermal, kuglig abgeflacht, 120-200μ breit, schwarz, mit breitem (oft bis 22μ) papillenförmigem Schnabel, mit circa 15μ dicken Wänden, von kastanienbraunem, parenchymatischem, am Schnabel fast schwarzem Gewebe. Sporen nadelförmig, 13-24μ lang, 1.5-2μ breit, gerade oder gebogen, gegen die Enden verjüngt, einzellig oder mit

einer wenig deutlichen Querwand, hyalin auf papillenförmigen Sporenträgern.

Missouri: Emma, Salina Co., auf trockenen Stengeln und Aesten von *Asclepias verticillata,* leg. C. H. Demetrio, misit O. Pazschke.

Diese neue Rhabdospora ist von *Rhabdospora cynanchica* S. B. R. durch grössere Pykniden, kürzere und schmälere Konidien gänzlich verschieden.

8. Leptothyrium californicum Bubák n. sp. — Flecken oberseits, rundlich, nicht scharf begrenzt, oft zusammen fliessend, braun, unterseits nicht sichtbar. Fruchtgehäuse oberseits, klein, auf den Flecken reichlich verteilt, circa 90μ breit, schildförmig, convex, schwarz, glänzend, subepidermal, später unregelmässig aufreissend, von ziemlich dickem, undeutlichem, schmutzig kastanienbraunem Gewebe. Sporen kurz ellipsoidisch, 4-6.5μ lang, 2-3μ breit, hyalin. Sporenträger kurz zylindrisch, circa 15μ lang, dichtstehend, hellolivenbräunlich.

California: Pine Grove, Amador County, auf lebenden Blättern von Quercus Morehus am 19. XII,1894,leg.Hansen.

Diese neue Leptothyrium ist von allen verwandten Arten gut verschieden; es kommt in Gesellschaft mit *Phleospora Hanseni* m. auf denselben Blättern vor.

9. Leptothyrium Pazschkeanum Bubák. n. sp. — Pykniden auf toten Stengeln und Aesten in weitläufigen Gruppen, flach, schildförmig, 50-120μ breit, braun, von hellgelbbraunem, parenchymatischem Gewebe, mit zentraler, dunklerer, unregelmässig rundlicher, nicht deutlich begrenzter Oeffnung.

Sporen bacillenartig, 3-4.5μ lang, 1μ dick, gerade oder schwach gebogen, hyalin, auf kurzen, undeutlichen Sporenträgern.

Missouri: Emma, Salina Co., auf toten Stengeln und Aesten von *Asclepias verticillata,* leg. C. H. Demetrio, misit O. Pazschke.

Eine sehr schöne Art, welche die toten Stengel und Aeste dicht mit braunen Pykniden bedeckt und bräunlich verfärbt.

10. Leptothyrium Kellermanni Bubák n. sp. — Pykniden hauptsächlich unterseits, seltener und nur vereinzelt auch oberseits, manchmal auf bleichen Flecken, zerstreut, flach schildförmig, im Umrisse rundlich, 90-150μ breit, mattschwarz, von kleinzelligem, olivendunkelbraunem Gewebe. Sporen bakterienartig, 3-4.5μ lang, 1μ dick, gerade, einzellig, auf schmal flaschenförmigen, 6-8μ langen, dünnen, unten büschelartig verbundenen, hyalinen Sporenträgern.

Ohio: Fairfield County, auf Blättern von *Sassafras officinalis,* leg. W. A. Kellerman, misit O. Pazschke.

Der neue Pilz kommt auf den Blättern in Gesellschaft mit *Sphaerella Sassafras* Ell. et Ev. vor.

Pseudostegia Bubak n. g. Melanconiacearum. — Fruchtlager flach, rundlich im Umrisse, subepidermal, später deckelartig die Epidermis aufhebend, dann flach schüsselförmig und am Rande mit Borsten besetzt. Sporen sichelförmig, einzellig, hyalin. Sporenträger aus dem Inneren der obersten dekapitierten Zellen hervorbrechend, zylindrisch, hyalin oder schwach gelblich.

11. Pseudostegia nubilosa Bubák n. sp. — Fruchtlager auf toten Blättern auf beiden Blattseiten, reichlicher aber oberseits, zerstreut oder gruppiert, manchmal zwischen den Nerven auch in kurzen Reihen stehend, flach, rundlich 120-160μ breit, schwarz, matt, nabelartig vertieft, von der Epidermis bedeckt, später dieselbe deckelartig auftreibend, dann nackt, schwach schüsselartig vertieft, mit weisslichgrauer Scheibe und ringsförmiger, schwarzer Kontur am Rande, und daselbst borstig, mit grosszelligem dünnwändigem, dunkelbraunem, circa 55μ dickem Hypostroma. Borsten kastanienbraun, auf schon länger entblössten Lagern ziemlich zahlreich, bis 45μ lang, circa 4μ dick, allmählich gegen den Scheitel verjüngt und unten oft zwiebelartig verdickt. Sporen schwach sichelförmig gebogen, beiderseits verjüngt, manchmal auch zugespitzt, 18-24μ lang, 2.5μ breit, einzellig, hyalin. Sporenträger als kurze, zylindrische Ausstülpungen aus dem Inneren der obersten, dekapitierten Zellen des Fruchtlagers hervorbrechend, circa 8μ lang, hyalin oder schwach gelblich.

Kentucky: Lexington auf toten Blättern von *Carex* sp., leg. W. A. Kellerman, misit O. Pazschke.

Ein sehr interessanter Pilz, welcher mit meiner neuen Gattung *Anaphysomene* (Annales Mycologici 1906) verwandt ist.

Das Mycel in Form von braunen, stellenweise dicken Hyphen dringt in dem toten Substrate bis in die Gefässe hinein.

Es ist möglich, dass er als Konidienstadium zu *Stegia Caricis* Peck (welche aber mit *Stegia subvelata* Rehm identisch ist) gehört.

Es scheint mir dann weiter, dass *Cyptosporium nubilosum* Ell. et Ev. mit meinem Pilze identisch ist, denn ich vermute, dass die Breite der Sporen nur durch einen Druckfehler statt 2.5μ-8.5μ angegeben ist. Sollte meine Vermutung zutreffen, dann müsste der vorliegende Pilz *Pseudostegia nubilosa* (Ell. et Ev.) Bubak genannt werden.

Bei Cryptosporium könnte er nicht verbleiben.

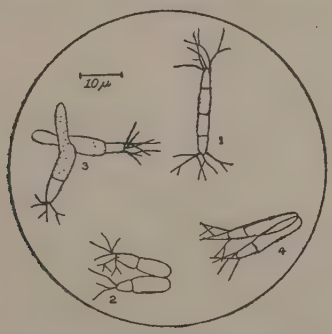
Es scheint mir überhaupt, dass unter dieser Firma, besonders unter den blätterbewohnenden Arten, viele genetisch verschiedene Pilze stecken.

Tabor, Böhmen, am 25 März, 1906.

DILOPHOSPORA ALOPECURI.

ERNST A. BESSEY.

Last November Dr. J. J. Davis of Racine, Wisconsin, sent to the writer some leaves of *Calamagrostis canadensis* collected in Kenosha County of that State. Among the galls caused by nematodes, for which reason they were sent, were found a few more obscure ones of different origin. At points the leaf was slightly swollen, the swellings taking in the space between two or three ribs and being 3 to 6 mm. long and 0.2 to 0.5 mm. in height. They contain pycnidia in one or two rows between each pair of ribs. They are immersed in the leaf tissue with the exception of a very small area around the ostiole which is without a beak. Usually they are at the upper, occasionally also at the lower surface of the leaf. The pycnidia are carbonaceous, spherical, 160 to 200 μ in diameter and entirely separate, without a stroma, or sometimes joined together by twos or threes. The spores are borne apparently singly on short sporophores, the long axis of the spore being continuous with that of the sporophore. When immature (but already free in the pycnidium) they are hyaline and one-celled. They soon however become segmented into four cells, the two middle cells becoming pale brown, the terminal cells and appendages remaining hyaline. (See fig. 1.) They are cylindrical or slightly fusiform, with rather truncate ends from which arise two to three usually once or twice forking appendages, tapering towards their ends. The spore may be slightly constricted at the septa. Rarely the spores are three-celled, either with the middle cell alone or the middle and one end cell colored. Exclusive of appendages the spores measure 15 to 20 by 2 to 2.3 μ, averaging about 17 x 2.1 μ. The



Dilophospora alopecuri, showing spore (1) and various stages of germination of spores (2, 3, 4).

appendages are 5 to 7μ, rarely 10 μ long and about 0.5 μ in thickness at the base. In germinating the two middle cells become more turgid causing the spore to fall apart between them (Fig. 2). The germ tubes grow directly or obliquely from the middle septum. (Figs. 3 and 4.) The hyaline end cells do not germinate.

In spite of the discrepancies between description and actual structure the fungus was recognized as a species of *Dilophospora*, and agrees in every regard, except a very slight difference in size of spores, with de Thümen, *Mycotheca universalis* No. 456 *D. graminis* Desm. on *Dactylis glomerata*. It also agrees with Desmazières' figures.[1]) Saccardo[2]) gives the measurements as 10 x 1.7-2 μ, but de Thümen's specimens contain spores 11.6 to 13.3 x 2-2.3 μ, while Desmazières, who was the first to observe the spores, gives 12 to 13.3 as the length (1/50 mm. including appendages, these being $\frac{1}{4}$ to $\frac{1}{3}$ the length of the spore body) and represents them in his illustration as 15 μ long. The differences in size being so slight, it does not seem justifiable to consider the American form as distinct.

This fungus was described in 1828 for the first time by Fries[3]) as *Sphaeria alopecuri* and as such is described by Duby,[4]) two years later. In 1840 Desmazières,[1]) to whom as well as to Fries and Duby the original collector had sent part of his material, established for the fungus a new genus *Dilophospora* and applied the specific name *graminis* citing *Sphaeria alopecuri* Fr. as a synonym. He described the spores as one-celled and hyaline in which he has been followed by Corda,[5]) Bonorden,[6]) Fuckel,[7]) Allescher[8]) and Saccardo.[2]) Bonorden suggested that the spores were borne transversely, but this is false.

Fries[9]) in 1849 accepts Desmazières' generic name, but insists upon his own specific name, saying of *Dilophospora*: "Plures species in culmis graminum in terris calidioribus (Typus D. Alopecuri *Fr. El.* sub Sph.) The name should be accordingly *Dilophospora alopecuri* (Fr.) Fr.

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[1] Ann. Sci. Nat. Bot. Ser. I. *14*:5-7. *pl. I. fig. 3.* 1840.

[2] Sylloge Fungorum. *3*:600. 1884.

[3] Elenchus Fungorum. *2*:91. 1828.

[4] Botanicon Gallicum. *2*:694. 1830.

[5] Icones Fungorum. *5*:30. 1842.

[6] Handbuch der Allgemeinen Mykologie. 227. 1851.

[7] Symbolae Mycologicae. 130. 1869.

[8] Rabenhorst, Kryptogamen-Flora Deutschland, &c. 2te Auflage, Bd. 1, Abth. 6. 947-948. 1901.

[9] Summa Veg. Scand. *2*:419. 1849.

PLEUROTUS HOLLANDIANUS SP. NOV.

D. R. SUMSTINE.

Horizontalis, imbricatus; pileo carnoso, tenui, sessili vel postice in stipitem brevem producto, semiorbiculari, ubique tomento denso tecto, albo vel luteo-albo, 1-3 cm. lat., 1-4 cm. long.; lamellis subdistantibus, simplicibus, inaequalibus, divergentibus, albidis, 1-3 mm. lat.; sporis subglobosis; cystidiis cylindraceo-fusoideis sursum acuminatis. P. *petaloidei* affinis sed forma, tomento pilei, latitudine lamellarum differt. Ad truncos putridos, Latrobe, Pennsylvania, 1903, 1904.

The thick tomentum of the pileus readily distinguishes this species. The type specimens are in the Carnegie Museum, Pittsburg, Pa. The name is given in honor of the director of the Carnegie Museum, Dr. W. J. Holland.

Wilkinsburg, Pa., Feb. 12, 1906.

NOTE ON WYNNEA AMERICANA.

D. R. SUMSTINE.

Mr. Jennings collected some plants at Ohio Pyle that agree fairly well with the description of *Wynnea americana* Thaxter (Bot. Gaz. 39:241. 1905.) There are some differences, however, but not sufficient possibly to establish a new species. I append a description of the Ohio Pyle specimens.

Apotheciis numerosis (3-11) in stipitem longum connatis, auritis, gelatino-carnosis, ad basim incisis, extus atrobrunneis, furfuraceo-tuberculatis, 2-8 cm. alt., 1-2 cm. lat.; stipite longo, solido, similiter, furfuraceo, coloratoque, radicato, supra valde incrassato, 3-6 cm. alt.; hymenio glabro, ochroleuco; ascis octosporis, cylindraceis longe stipitatis, iodo non tinctis; sporis monostichis, levibus, hyalinis, elliptico-fusiformibus, plerumque guttulatis; paraphysibus linearibus, vix apice incrassatis, septatis, ramosis.

Hab. in terra arenosa, Ohio Pyle, Pennsylvania, Septembri, 1905.

Wilkinsburg, Pa.

SECOND SUPPLEMENT TO NEW GENERA OF FUNGI PUBLISHED SINCE THE YEAR 1900, WITH CITATION AND ORIGINAL DESCRIPTIONS.

COMPILED BY P. L. RICKER.

II. SCHIZOMYCETAE.

[Schizomycetae.]

APLANOBACTER E. F. Smith n. g. Bacteriaceae. Bacteria in Relation to Plant Diseases, 1:171. 1905.

"An unattached, non-motile, rod-shaped organism, destitute of chlorophyll and multiplying by fission, sometimes forming threads of considerable length. The type of the genus, in the family Bacteriaceae, is that organism causing anthrax and most commonly known in literature as Baccillus anthracis Cohn."

III. PHYCOMYCETAE.

[Phycomycetae.]

ACTINOCEPHALUM Saito n. g. Mucoraceae. The Botanical Magazine, Tokyo, 19:36, pl. 3.f. 1-12. 1905. Not Actinocephalus Kütz. Phyc. Gen. 190. 1843.

"Caespitulo griseo, mycelio inaequali, ramoso, citra substratum expanso; hyphis sporangiferis erectis, basi rhizoidibus destitutis, generaliter verticillatis ramosis, ramis capitulato-inflatis, diametro vesiculis 25-55μ; condiis globosis vel ovalibus, 20μ vel 18 x 21μ, monospermis in processibus insertis, hyalinis, echinulatis, zygosporis et chlamydo-sporis ignotis."

[*See Saitomyces Ricker.*]

[Phycomycetae.]

ACTINOMUCOR Schostakowitsch n. g. Mucoraceae. Zeitschrift für Angewandte Mikroskopie 8:35. 1903.

"Alle Eigenschaften dieses Pilzes treten besonders deutlich hervor, wenn er auf irgend welchem auf Wasser frei schwimmenden substrate wächst. * * * Bald nach der Sporenaussaat bedeckt sich die Fliege mit einem Mycel, welches in das Innere des Insektenkörpers eindringt, sich auch teilweise im Wasser verbreitet und dieselben Eigenschaften aufweist, die dem Mucoraceenmycel überhaupt eigentümlich sind."

"Nach drei bis vier Tagen bilden sich vom Mycel zahlreiche Auslaüfer; sie krümmen sich schwach bogenförmig und verbreiten sich nach allen Richtungen auf der Wasseroberfläche. Sie sind 10-15μ dick, unseptiert und zerzweigt."

"Die Sporagien, welche die Hauptzweige abschliessen, sind grösser als diejenigen, welche auf kurzen querliegenden Aesten sitzen und das Hauptsporangium wie mit einem kranz umgeben. Die Hauptsporangien sind kugelig, durchschnittlich 120μ im Durchmesser, mit zerbrechlicher, stark inkrustierter Membran versehen. Die Nebensporangien erreichen eine Grösse von nicht

über 40μ im Durchmesser; ihr Membran ist fester als bei den Hauptsporangien. Die Columella der Hauptsporangien ist kegelförmig 90-100μ hoch, 60-80μ breit, mit glatter Membran und farblosem Inhalte; die Columella der Nebensporangien ist viel kleiner, knopfförmig, 40μ hoch und 30μ breit. Die Sporen sind kugelig gleichartig, durchschnittlich 7μ in Durchmesser, einseln farblos, behauft schwarzlich."

[Phycomycetae.]

PERONOPLASMOPARA Berl. n. g. Peronosporaceae. Report of the Connecticut Agricultural Experiment Station, 1904. 4:334. pl. 29-31. 1905.

"Conidiophores of the dichotomous or modified dichotomous type of branching; with branches spreading mainly at acute angles, the ultimate spore-bearing tips being separate and subobtuse. Conidia chiefly large, tinted (violet chiefly), with a conspicuous papilla of dehiscence and germination typically by zoospores. Haustoria small and usually simple."

[Phycomycetae.]

PILOEOPHTHORA Klebahn n. g. Peronosporaceae. Centralblatt für Bakteriologie, und Parasitenkunde, Abt. II. 15:336. 1905.

"In den Intercellularräumen der kranken Rinde findet sich ein Pilz, dessen dicke, plasmareiche, mit spärlichen aber charakteristischen Querwänden versehene Hyphen bis an die Grenzen der Braunfärbung vordringen. Der Pilz bildet Dauersporen, im Gewebe der Rinde in den Intercellularen, in den Knospen auch zwischen den Blatt- und Blütenanlagen. Die Sporen sind rund oder oval, 18-28 μ dick und haben eine dicke, glatte, farblose oder schwach gelbliche Membran. Sie liegen innerhalb eines zweiten, zarten, meist etwas abstehenden Membran, welcher aussen eine kleinere, leere Zelle flach ansitzt, mitunter hat die Sporenmembran eine röhrenförmige Einstülpung nach innen, die, wenn sie vorhanden ist, stets da liegt, wo die kleinere Zelle aussen ansitzt. Diese Strukturen erinnern an die Oosporen, Oogonien und Antheridien der Peronosporaceen."

[Phycomycetae.]

PYTHITES Pampaloni n. g. Saprolegnaceae. Atti della Reale Accademie dei Linceie V. 11:250. 1902. Fossil.

"Mycelium filamentosum tunc parce tunc crebre ramosum; hyphae incolores tunc uniformi crassitudine, tunc irregulariter varicosae; oogonia monospora, sphaeroidea, laevia, terminalia 70-100μ."

[Phycomycetae.]

Saitomyces Ricker n. n. Mucoraceae. Actinocephalum Saito 1905, not Actinocephalus Kütz. 1843.

Tpye **Saitomyces japonicus** (Saito) Ricker n. comb.

A. japonicus Saito, Tokyo Bot. Mag. 19:36. 1905.

[Phycomycetae.]

THAMNOCEPHALIS Blakeslee n. g. Mucoraceae. Botanical Gazette, 40:165. 1905.

"Vegetative hyphae fine, continuous, anastomosing. Fructification erect, consisting of a main stalk supported above the substratum by stout rhizoidal props and bearing a bushy crown of subdichotomously-branched fertile hyphae, terminated by sterile branches. Spores solitary, borne on the surface of spherical heads. Heads borne at the apex of short lateral stalks which arise at nodes from opposite sides of the fertile hyphae at right angles to their planes of branching."

[Phycomycetae.]

ZYGORHIZIDIUM Loewenthal n. g. Chytridiaceen. Archiv. für Protistenkunde, 5^2:228. pl. 7-8. 1905.

"Der gefundene Parasit würde in die Gattung Rhizidium in Umgrenzung von Fischer wohl hineinpassen, unterscheidet sich aber von ihr durch das Vorhandensein einer heterogamen Copulation, ein so wichtiger Unterschied, das trotz aller Scheu vor neuen Gattungen die Aufstellung einer neuen Gattung Zygorhizidium gerechtfertigt erscheinen dürfte.

Ebenso wie bei Rhizidium bildet sich der Körper aus der erstarkten Schwämspore; er bleibt ausserhalb der Wirtzelle, in welche nur eine Blase und davon ausgehende überaus feine, kurze Hyphen hineinwagen. Der ausserhalb liegende Teil ist mehr oder weniger genau kugelig, seine Grösse schwankt zwischen 4-15 μ. Nur die kleinsten Exemplare weichen erheblicher von der Kugelgestalt ab und sind länglich birnförmig, mit der Längsachse annähernd senkrecht zur Membran der Cylindrocystis-Zelle gestellt."

IV. ASCOMYCETAE.

[Ascomycetae.]

ACANTHOSTIGMELLA von Höhnel n. g. Sphaeriales. Annales Mycologici, 3:327. 1905.

"Perithecien klein, häutig, oberflächlich, mit kurzzylindrischer Mündungspapille, die von derben Borsten umgeben ist, sonst fast kahl. Asci keulig, achtsporig, ohne Paraphysen. Sporen länglich, subhyaline, mit 2 bis mehreren Querwänden."

[Ascomycetae.]

ANIXIELLA von Höhnel n. subg. of Anixia. Sitzungsberichte der Kaiserl. Akademie der Wissenschaften, mathematisch-naturwissenschaftlichen Classe, 111:991. 1902.

"Asci aparaphysati."

[Ascomycetae.]

CHAETOMITES Pampaloni n. g. Sphaeriaceae. Atti della Reale Accademie dei Lincei V. 11:250. 1902. Fossil.

"Perithecia superficialia, 1 mm. lata, gregaria carbonaceo-

membranacea, aterrima, superne glabrata, inferne pilis densis, longissimis, tortuosis, simplicibus, fusci, vestita."

[Ascomycetae.]

CRYPTOSPORINA von Höhnel n. g. Hypocreaceae. (Cryptosporella aurea Fckl. and C. hypodermia (Fr.)). Oesterreichische Botanische Zeitschrift, 55:54. 1905.

[Ascomycetae.]

DENDROSTILBELLA von Höhnel n. g. Pezizaceae. Oesterreichische Botanische Zeitschrift, 55:22. 1905.

"1st Stilbella mit büschelig und wirtelig verzweigten Sporenträgern. Sporen sehr klein. Gehört als Nebenfruchtform zu Coryne-Arten."

[Ascomycetae.]

DICTYONIA Syd. n. n. Rhemiomyces P. Henn. 1904. Not Sacc. & Syd. 1902. Bulgariaceae. Annales Mycologici 2:549. 1904.

[Ascomycetae.]

DIDYMASCINA von Höhnel n. g. Sphaeriales. Annales Mycologici, 3:331. 1905.

"Ascomata eingesenkt, erst kugelig und geschlossen, dann sich mit rundlichem Porus öffnend, ohne deutliches oder mit im ausseren Teile gut entwickeltem Excipulum Schlauchboden flach, ohne eigene Wandung. Asci zylindrisch, 8-sporig; Sporen braun, zweizellig. Paraphysen zahlreich, fädig, verzweigt und oben netzig verbunden, ein Epithecium bildend. Holz und Rinden bewohnend."

[Ascomycetae.]

ENGLERULA P. Hennings n. g. Hypocreaceae. Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie, 34:49. 1904.

"Perithecia hyphicola superficialia, sicco subcornea, mellea, humido subgelatinosa, tenui-membranacea, sine structura cellulose, vix ostiolata. Asci ovoidei, 8-spori, aparaphysati. Sporae atrofuscae, 1-septatae. Spegazzimulae, Passerinulae an affinis?"

[Ascomycetae.]

EUANIXIA von Höhnel n. subg. of Anixia. Sitzungsberichte der Kaiserl. Akademie der Wissenschaften, mathematisch-naturwissenschaftlichen Classe 111:991. 1902.

"Asci paraphysati."

[Ascomycetae.]

FERACIA Rolland n. g. Spahaeriales. Bulletin Trimestriel de la Société Mycologique de France, 21:28. 1905.

"Novum genus, de ferax, productif, fructueux; allusion à une plus grand quantité de spores dans la thèque.

Perithecia glabra, sparsa vel gregaria, erumpentia, membranacea, ostiolata.

Asci clavati, paraphysati, vigenti-quatuor aut ultrà sporidia phoeodictia gignentes."

[Ascomycetae.]

GEASTERINA Sacc, n. subg. of Pyrenopeziza. Annales Mycologici 2:16. 1904.

[Ascomycetae.]

HENNINGSOMYCES Saccardo n. g. Sphaeriaceae. Sylloge Fungorum 17:689. 1905.

"Perithecia superficialibus, atris, globosa-piriformibus, rostro leniter curvulo, noduloso instructis, basi circa 1 mm. latis, fere 2 mm. longis; ascis cylindraceis, breviter stipitatis, 85 μ long; sporidiis oblique et irregulariter monostichis, oblongo-ovatis, 10 septatis, brunneis 10 x 4."

[Ascomycetae.]

HYPOSTOMACEES Vuillemin n. fam. Annales Mycologici, 3:342. 1905.

[Ascomycetae.]

HYPOXYLINA Starbäck n. g. Xylariaceae. Arkiv för Botanik 5^7:29. 1905.

"Stroma pulvinatum vel pulvinato-effusum, tenue; perithecia acervulatim conjuncta, textura carnosa, densissime prismatica, nectriodea; sporidia continua ellipsoidea, fusca. Hypoxylon primo obtuitu in memoriam revocans textura molissima, sub lente si tenuissime praeparata, lilacino-vinosa genus facile Hypocreaceis adscribendum; a Penzigia peritheciis semiliberis vel basi tantum conjunctis nec non textura plane differt."

[Ascomycetae.]

LENTOMITELLA von Höhnel n. g. Ceratostomeae, Annales Mycologici 3:552. 1905.

"Wie Lentomita, aber die Sporen mit aussen aufgesetzten feinen Längsstreifen versehen, daher am optischen Querschnitte ringsum mit kleinen Wärzchen besetzt."

[Ascomycetae.]

MELANOSPORITES Pampaloni n. g. Hypocreaceae. Atti della Accademie dei Lincei V, 11:251. 1902.

"Perithecia superficialia, simplicia, mollia, membranacea, sphaeroidea, flavescentia, villo fusco, stipato tecta, 6 sporis nigris, sphaeroides-ellipsoideis 60-80μ."

[Ascomycetae.]

MICROTHYRITES Pampaloni n. g. Microthyriaceae. Atti della Reale Accademie dei Lincei, V, 11:250. 1902. Fossil.

"Perithecia superficialia, sparsa, simplicia, membranacea dimidiata, sentiformia, cellulis exiguis, poligonalibus, concentricis, 15-20 μ latis, fuscis, margine crenulatis."

[Ascomycetae.]

MITRULIOPSIS Peck n. g. Helvellaceae. Bulletin of the Torrey Botanical Club, 30:100. 1903.

"Ascomata fleshy, obovate or spathulate, stipitate; asci 8-spored, aparaphysate; spores filiform.

A genus related to Mitrula and Spathularia, but with filiform spores."

[Ascomycetae.]

NEMATOSPORA Peglion n. g. Saccharomycetaceae. Centralblatt fur Bakterologie Parasitenkunde und Infektions-Kranheiten Abteilung II, 7:754. pl. 1-11. 1904.

"Wie ich in der angeführten Arbeit sagte, sind die Sporen der Nem. Coryli fadenförmig oder besser ein wenig spindelförmig, die eine der Spitzen ist abgerundet, die andere läuft in ein langes Flagellum oder eine Geissel aus, die in jedem Zustande des Substrates, auf dem sich die Spore befindet, unbeweglich ist. Ihre Länge schwankt zwischen 38 und 40μ, ohne die Geissel, die 35-40 μ misst. Die Dicke der Spore betragt 2-3 μ."

[Ascomycetae.]

NIGROSPHAERIA Gardner n. g. Hypocreales. University of California Publications. Botany, 2:179. 1905.

"Parasitic mycelium consisting of scanty white filaments penetrating the subhymenial tissue of the host. Perithecia arising from single erect filaments, sphaerical, without an ostiolum. Asci broadly clavate. Peridium white, smooth. Ascospores single-celled, brownish or black. Paraphyses none."

[Ascomycetae.]

PARANECTRIELLA P. Henn. n. subg. Paranectria. Hypocreaceae Sacc. Syll. Fung. 17:812. 1905.

[Ascomycetae.]

PERISPORITES Pampaloni n. g. Perisporiaceae. Atti della Reale Accademie dei Lincei V, 11:251. 1902.

P. hirsutus. "Perithecia reniformia, simplicia, libera, virido carbonacea, cellulis fere 8 μ latis contexta, astoma, fere ad tertium sulco circulari praedita, 25-26 setulis atris, rigidis, perithecium fere aequantibus."

P. setosus. "Perithecia rotunda simplicia, libera, virido-carbonacea, cellulis minutis fere 4 μ latis contexta, globosa, astoma, 18 setulis artis, rigidis, perithecium fere acquantibus."

[Ascomycetae.]

PHAEOSACCARDINULA P. Henn. n. g. Microthyriaceae. Hedwigia, 44:67, f. a-c. 1905.

"Perithecia superficialia (phyllogena) scutellato-dimidiata, contextu subradiato-celluloso, fusco. Asci subovoidei, 8-spori, paraphysati: Sporae oblonge cylindraceae, pluriseptatae, muraliae, fuscae. Saccardinula Speg. ascis paraphysatis, sporis fuscis etc. diversa."

[Ascomycetae.]

PHRAGMOGRAPHUM P. Henn. n. g. Hysteriaceae. Hedwigia, 44:68. f. a-d. 1905.

"Perithecia superficialia, sublinearia, simplicia vel ramulosa, rima longitudinali dehiscentia, submembranacea, atra. Asci subovoidei, clavati, 8-spori, paraphysati. Sporae longefusoideae, pluriseptatae, basi subrostratae, hyalinae. Aulographo affin. sed sporae pluriseptatae."

[Ascomycetae.]

PTEROMYCES Bomm. Rouss. & Sacc. n. g. Pezizales. Annales Mycologici 3:507. 1905.

"Ascomata perexigua, depresse globulosa, tenuissime carnosula, pallide colorata, supra circulariter dehiscentia et discum (nucleum?) pallidiorem ostendentia; excipuli contextu tenuissime pseudoparenchymatico, margine subintegro non flexuo nec vere distincto. Asci e basi fasciculati, clavulati, subsessiles, octospori, paraphysibus bacillaribus cincti. Sporidia ovoidea, continua, hyalina, minuta."

[Ascomycetae.]

ROBERTOMYCES Starbäck n. g. Pezizaceae. Arkiv för Botanik 5^7:5. pl. 1. f. 4. 1905.

"Apothecia erumpentia, patellariaceae, textura fuligineo-atrata, coriaceo-carbonacea, globulosa, in juvenibus stratu superficiale textura erecta prismatico gignuntur; inter ascos evolutos restant reliquiae contextus prismatici in epithecium globulosum, fuligineo-nigrum transeuntes. Sporidia hyalina, continua. Paraphyses nullae. Mirabile hoc genus Med. D:ri Robert Fries, peritissimo mycologo, fratisque ejus filio Phil. D:ri Robert E. Fries, diligentissimo botanico, ut amicitiae pignus dedicatum volui."

[Ascomycetae.]

ROLLANDIA Patouillard n. g. Gymnoascaceae. Bulletin Trimestriel de la Société Mycologique de France, 21:83. 1905.

"Receptaculum déterminatum, ex hyphis septatis, ramosis, pannoso-contextis formatum. Asci suboctospori, ovoideo-globosi, minuti, hyalini, dense glomerati; glomeruli numerosi, sparsi, noduliformes, trama undique obvoluti. Sporae hyalinae."

[Ascomycetae.]

SEURATIACEAE Vuillemin n. fam. Perisporiales. Bulletin Trimestriel de la Société Mycologique de France, 21:79. 1905.

[Ascomycetae.]

UNCINULITES Pampaloni n. g. Perisporiaceae. Atti della Reale Accademia dei Lincei V, 11:250. 1902. Fossil.

"Perithecia subglobosa, tenui membranacea, nigra, astoma, 30-35 μ, appendicibus simplicibus, 18-25 cm. longis, apice uncinatis, perithecium fere aequantibus, indivisis, ad apecem fuscis ad basim atris."

[Ascomycetae.]

UNGUICULARIA von Höhnel n. g. Pezizaceae. Annales Mycologici, 3:404. 1905.

"Ascomata klein, Pezizella-artig, oberflächlich aufsitzend, nach unten verschmälert. Gewebe sehr kleinzellig bis fäserig. Asci keulig, 8-sporig, sporen 2-3 reihig, einzellig, länglich, Paraphysen sehr dünn; Ascomata aussen mit sehr dickwändigen, spitzen Haaren bedeckt."

(*To be concluded.*)

INDEX TO NORTH AMERICAN MYCOLOGY.

Alphabetical List of Articles, Authors, Subjects, New Species and Hosts, New Names and Synonyms.

W. A. KELLERMAN.

(Continued from page 231, Vol. II.)

ACER rubrum, host to Valsaria acericola Ellis & Fairman n. sp. Proc. Rochester Acad. Sci. 4:189. 2 Sept. 1905.

ACER, wood, host to Chaetosphaera ludens Morgan n. sp. Jour. Mycol. 11:105. May 1905.

ADOLPHIA infesta, host to Phyllachora adolphiae Ellis & Kellerman n. sp. Jour. Mycol. 10:232. Sept. 1904.

AECIDIUM argithamniae Arthur n. sp., on Argithamnia schiediana Müll. Arg. (?) [Mexico.] Bull. Torr. Bot. Club, 33:33. Jan. 1906.

AECIDIUM batesianum Barth n. sp., on leaves and petioles of Delphinium albescens Rydb. Fungi Columbiani No. 1901.

AECIDIUM cardui Arthur n. sp., on Carduus hookerianus (Nutt.) Heller (Cirsium hookerianum Nutt.) Bull. Torr. Bot. Club, 33:33. Jan. 1906.

AECIDIUM falcatae Arthur n. sp., on Falcata comosa (L.) Kunze (Amphicarpaea monoica Ell.), and Apios apios (L.) MacM. (A. tuberosa Moench.) Bull. Torr. Bot. Club. 33:32. Jan. 1906.

AECIDIUM punctatum Pers. (Ae. quadrifidum DC.) [Cultures on Prunus serotina Arthur.] Jour. Mycol. 12:19. Jan. 1906.

AECIDIUM triostei Arthur n. sp., on Triosteum angustifolium L. Bull. Torr. Bot. Club, 33:32. Jan. 1906.

AESCHYNOMENE americana L., host to Uredo aeschynomenis Arthur n. sp. Bot. Gaz., 39:392. June 1905.

AGARICACEAE, synopsis of, with white context. [Murrill] Bull. Torr. Bot. Club, 32:491. Sept. 1905.

AGARICUS, *see Polyporaceae of North America X . . . .*

AGARICUS (Dill.) L. [Striglia Adams., Daedalea Pers., Daedaleopsis Schroet.] [Murrill.] Bull. Torr. Bot. Club. 32:83. Feb. 1905.

AGARICUS aesculi (Schw.) Murrill n. n. [Boletus aesculus flavae Schw., Polyporus aesculi Fr., Trametes incana Berk., Daedalea ambigua Berk., Trametes ambigua Fr., T. lactea Fr., Lenzites glaberrima B. & C., Daedalea glaberrima B. & C., Trametes berkeleyi Cooke.] Bull. Torr. Bot. Club, 32:89. Feb. 1905.

AGARIC, Another Fly. [Amanita olitoria Bull.] D. R. Sumstine. Jour. Mycol. 11:267. Nov. 1905.

AGARICUS confragosus (Bolt.) Murrill n. n. [Boletus confragosus Bolt., Daedalea confragosa Pers., D. rubescens A. & S., D. albida Schw., D. zonata Schw., D. discolor Fr., D. discolor, Kl., D. corrugata Kl., Trametes rubescens Fr., Lenzites klotzschii Berk., L. crataegi Berk., L. unguliformis B. & C., L. bicolor Fr., L. Cookeii Berk., L. proxima Berk.] Bull. Torr. Bot. Club, 32:86. Feb. 1905.

AGARICUS cothurnatus Peck, n. sp., rich soil along roadsides and paths. Bull Torr. Bot. Club, 31:181. Apr. 1904.

AGARICUS deplanatus (Fr.) Murrill n. n. [Daedalea elegans Spreng., D. deplanata Fr., Lenzites deplanata Fr., Trametes elegans Fr., T. centralis Fr.] Bull. Torr. Bot. Club, 32:91. Feb. 1905.

AGARICUS labyrinthiformis Bull., *syn of Agaricus quercinus q. v.*

AGARICUS juniperus Murrill n. sp., on a red cedar stump. Bull. Torr. Bot. Club, 32:85. Feb. 1905.

AGARICUS quercinus L. [A. labyrinthiformis Bull., Daedalea quercina Pers., Polyporus latissimus Fr., Daedalea quercina var. nigricans Fr.] [Murrill.] Bull. Torr. Bot. Club, 32:85. Feb. 1905.

AGARICUS rhodoxanthus Schw., *syn. of Boletinus rhodoxanthus q. v.*

AGARICUS rutilescens Peck n. sp., manured ground in pastures. Bull. Torr. Bot. Club, 31:180, Apr. 1904.

AGARICUS solidipes Peck n. sp., prairie pastures. Bull. Torr. Bot. Club, 31:180. Apr. 1904.

AGARICUS sphaerosporus Peck, n. sp., rich soil. Bull. Torr. Bot. Club, 31:181. Apr. 1904.

AGROPYRON spicatum (Ph.) Rydb., host to Puccinia pattersoniana Arthur n. sp. Bull. Torr. Bot. Club, 33:29. Jan. 1906.

AGUACATE, *see Dolichos reticulata.* . . . .

AMELANCHIER, dead twigs, host to Botryodiplodia amelanchieris Ellis & Fairm. Jour. Mycol. 10:229. Sept. 1904.

AMPHIPTERYGIUM amphifolium Hemsl. & Rose, host to Phyllosticta amphipterygii Ricker n. sp. Jour. Mycol. 11:111. May 1905.

AMPHICARPAEA monoica Ell., host to Aecidium falcatae Arthur n. sp. Bull. Torr. Bot. Club, 33:32. Jan. 1906.

AMPHISPORES [of Puccinia caricis (Schum.) Reb. Arthur.] Jour. Mycol. 12:15. Jan. 1906.

AMANITAS OF SWEDEN [nine species compared with the American representatives]. H. C. Beardslee. Jour. Mycol. 11:212-6. Sept. 1905.

ANDIRA excelsa, host to Polystigma pusillum Syd. n. sp. [Guatemala.] Ann. Mycolog. 2:167. Mar. 1904.

ANDROPOGON hirtiflorus Kth., host to Uromyces clingyi Pat. & Har. Jour. Mycol. 11:115. May 1905.

ANDROPOGON liebmannii Hack., host to Uromyces clingyi Pat. & Har. Jour. Mycol. 11:115. May 1905.

ANDROPOGON schottii Rupr., host to Uromyces clingyi Pat. & Har. Jour. Mycol. 11:115. May 1905.

ANDROPOGON sp., host to Balansia discoidea P. Hennings. [Atkinson.] Jour. Mycol. 11:255. Nov. 1905.

A NEW American species of Wynnea. Roland Thaxter. Bot. Gaz. 39:241-7. Pl. IV-V. April 1905.

ANOTHER Fly Agaric [Amanita olitoria Bull.] R. S. Sumstine. Jour. Mycol. 11:267. Nov. 1905.

ANTHOSTOMA acerinum Ellis & Fairman n. sp., on bark of maple. Proc. Rochester Acad. Sci. 4:189. 2 Sept. 1905.

APIOS apios (L.) MacM., host to Aecidium falcatae Arthur n. sp. Bull. Torr. Bot. Club, 33:32. Jan. 1906.

APIOS tuberosa Moench., host to Aecidium falcatae Arthur n. sp. Bull. Torr. Bot. Club, 33:32. Jan. 1906.

APLANOBACTER Erwin F. Smith nov. gen. nom. The type of the genus, in the family Bacteriaceae, is that organism causing anthrax and most commonly known in literature as *Bacillus anthracis* Cohn. Bact. Rel Plant Dis. 1:171. Sept. 1905.

ARGITHAMNIA schiediana Müll. Arg. (?), host to Aecidium argithamniae Arthur n. sp. Bull. Torr. Bot. Club, 33:33. Jan. 1906.

ARISTIDA dichotoma, host to Dothichloë aristidae Atkinson. Jour. Mycol. 11:261. Nov. 1905.

ARISTIDA purpurascens, host to Dothichloë aristidae Atkinson. Jour. Mycol. 11:261. Nov. 1905.

ARTHEROPOGON curtipendulus, *see Bouteloua curtipendula* . . .

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ARTHUR, J. C. Cultures of Uredineae in 1905. Jour. Mycol. 12:11-27. Jan. 1906.

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ARTHUR, J. C. Terminology of the spore-structures in the Uredinales. Bot. Gaz. 39:219-222. March 1905.

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(*To be continued.*)

NOTES FROM MYCOLOGICAL LITERATURE, XVIII.

W. A. KELLERMAN.

THE MYCOLOGICAL ARTICLES in Centralblatt f. Bakt. Parasitenk. u. Infektionskr., Zweite Abteilung, XIII Band, 1904, are: Chester, Frederick D., A review of the Bacillus subtilis group of bacteriaffi Düggeli, Max, Die Bakterienflora gesunder Samen und daraus gezogener Keimpflänzschen. (Forts. u. Schluss); Harrison, F. C., A bacterial disease of cauliflower (Brassica cleracea) and allied plants; Laubert, R., Beitrag zur Kenntnis des Gloeosporium der roten Johannisbeere; Lepeschkin, W. W., Zur Kenntnis der Erblichkeit bei den einzelligen Organismen, Die Verzweigung und Mycelbildung bei einer Bakterie (Bacillus) Berestnewi n. sp. [Schluss.]; Metcalf, Haven, Bacterium teutlium sp. nov.; Saito, K., Eine neue Art der "Chinesischen Hefe;" Semadini, Franc. Ottavio, Beiträge zur Kenntnis der Umbelliferen bewohnenden Puccinien; Smith, Erwin F., Ursache der Cobbschen Krankheit des Zuckerrohrs; Uyeda, Y., On the Tobacco Wilt Disease caused by a Bacteria (Preliminary Notice).

THE MYCOLOGICAL ARTICLES IN HEDWIGIA, BAND XLV, HEFT 1, 14 Okt. 1905, are: Dritter Beitrag zur Pilzflora des Gouvernements Moskau, von P. Hennings [a long list with about eight new species described]; and Ueber Tracya hydrocharidis Lagerh. von E. Reukauf-Weimar [with figures of a section of a spore ball bearing conidia, conidia fusing, mycelium fusing, etc.].

THE LYCOPERDACEAE OF AUSTRALIA, NEW ZEALAND AND NEIGHBORING ISLANDS, illustrated with 15 plates and 49 figures, by C. G. Lloyd, has been issued from Cincinnati at the Lloyd Library, bearing date of April 1905. Australia is regarded by Mr. Lloyd as the richest country in the world in Lycoperdaceae; he says more strange and endemic genera are found there than in any other continent. This forty-two-page pamphlet gives descriptive notes and illustrations of the known species of that region. It is introduced by a brief characterization of the group Gastromycetes and its four families, Phalloideae, Nidulariaceae, Hymenogastraceae, Lycoperdaceae.

ERWIN F. SMITH IS THE AUTHOR OF BACTERIA IN RELATION TO PLANT DISEASES, Volume One (Methods of work and general literature of Bacteriology exclusive of Plant Diseases) which is Publication No. 27 of the Carnegie Institution of Washington, September 1905. It is a splendid volume of 285 pages, admirably illustrated, and even the taxonomic mycologist will inspect it with interest and profit The chapter on Nomenclature and Classifications will challenge closest scrutiny. Dr. Smith proposes one new genus, having for its type Bacillus anthracis Cohn. He says this volume is not intended to take the place of

ordinary text-books of bacteriology, but rather to supplement the same, giving information where they are silent or misleading. That a modest claim is made is indicated by the quotation in the preface: "Man would never give anything to the public if he waited till he had reached the goal of his undertaking, which is ever appearing close at hand and yet slipping farther and farther as he draws nearer."

Charles E. Fairman publishes the Pyrenomyceteae of Orleans County, N. Y., in the Proceedings of the Rochester Academy of Science, vol. 4, pp. 165-191, figs. 1-6, Sept. 2, 1905. It is a fourth paper in the series of this author on the cellular cryptogams of that region. The Nos. are carried from 200 to 354, notes are given and the following new species are described: Lophiostoma imperfecta, Valsaria acericola, Anthostoma acerinum, Melanomma juniperi, and Caryospora cariosa.

Of the papers published in Bulletin de Societe Imperiale des Naturalistes de Moscou, 1904, N. S. tome XVIII, we find the following of interest to the mycologists: Nachtraegliche Bemerkungen zur Verbreitung der Fungi hypogaei in Russland von Fedor Bucholdtz. About one and a half dozen species are reported, accompanied with notes and comments.

A new edition or rather a recent reprint (1905) of the Mushroom Book by Nina L. Marshall, publishers Doubleday, Page & Co., contains, in addition to former half-tones also the following new illustrations, namely, Amanitopsis strangulata, Mycena galericulata, Lepiota granosa, Collybia maculata, Collybia platyphylla, Clitocybe illudens, Agaricus campestris, Cortinarius caninus, Cortinarius armillatus, Hydnum coralloides, Clavaria ligula, Strobilomyces strobilaceus, Boletus felleus obesus, Boletus scaber niveus, Elfvingia fomentaria, Calostoma (four species, colored), Leotia lubrica, Tremellodon gelatinosum, Peziza aurantia (colored), Peziza odorata (colored), and Panus strigosus.

Ernest S. Salmon, On the present Aspect of the Epidemic of the American Gooseberry-Mildew in Europe, Jour. Roy. Hort. Soc. 29:102-110, Dec. 1904, shows with the aid of a map that at about a dozen and a half localities in Ireland and in Russia this Fungus occurs. Prof. Rostrup reports it also in Denmark. This disease was introduced into Europe from America about the year 1900.

Some Diseases of the Potato, by George Massee, in the Journal of the Royal Horticultural Society, vol. XXIX, Parts 1-3. Dec. 1904, pp. 139-145, is a popular illustrated article dealing with Phytophthora infestans DeBary, Winter-rot (*Nectria solani* Pers.), Black Scab (*Oedomyces leproides* Trabut), Bacterial Disease (*Bacillus solanacearum* Smith), Potato Scab (*Sorosporium scabies* Fisch.).

THE FUNGOID PESTS OF THE VINERY AND STOVE, M. C. COOKE, in Jour. Roy. Hort. Soc. 28:313-337, May 1904, popular, is accompanied by three colored plates illustrating thirty-three species.

IN PESTS OF ORCHARD AND FRUIT GARDEN, JOUR. ROY. HORT. SOC. 28:1-43, Oct. 1903, by M. C. Cooke, the three colored plates show spores, etc., of forty-three species.

JOSEPH CHARLES ARTHUR PUBLISHES IN THE BULLETIN OF THE TORREY BOTANICAL CLUB for Jan. 1906 (33:27-341) New Species of Uredineae, IV, from various localities as Porto Rico, Cuba, Mexico, and the United States. One species is a Uromyces, one Hyalospora, one Ceratelium, one Coleosporium, one Uredo and four Aecidiums. The genus *Ceratelium* is new, and one species is described on Canavalia from Porto Rico. "An especially interesting rust on account of the combination of a melampsoraceous fungus with a leguminous host. . . . . Except in the length of the telial column, there is considerable resemblance to Cronartium." In the descriptions Dr. Arthur has made use of the terms (lately proposed by him) *pycnium, aecium, uredineum* and *telium*, instead of spermogonium, aecidium, uredo and teleutospores.

P. HENNINGS ENUMERATES A LONG LIST OF FUNGI, including many new species, from eastern Africa, under the title Fungi Africae orientalis, the first part of which appeared May 22, 1900, and the second part 18 Nov. 1902, in Engler's Botanischer Jahrbücher, vols. 28 and 33. The new genera *Engleromyces* and *Busseella* are there described.

THE ORIGINAL ARTICLES IN 4E FASCICULE (TOME XXI) OF THE BULLETIN MYCOLOGIQUE DE FRANCE, issued 31 Dec. 1905, are: R. Maire, Flore mycologique des iles Baleares (avec fig.); G. Bainier, Acrostalagmus roseus Bain. et Nemotogonum album Bain. (Pl. XII et XIII); F. Guéguen, Gliomastix (Torula) chartarum n. gen. et n. sp. (Pl. XIV et XV); F. Guéguen, Quelques mots sur les Aspergillus pathogènes.

AN EXHAUSTIVE STUDY OF THE LIFE HISTORY OF HYPOCREA ALUTACEA is published by Geo. F. Atkinson in the Dec (1905) No. of the Botanical Gazette (40:401-416), illustrated by three full page half tones. He unites Bresadola's H. lloydii with this species and the new name necessary in the light of present knowledge is formed as follows: Podostroma alutaceum (Pers.) Atkinson. Professor Atkinson satisfied himself that the American plants are identical with European ones not only by an examination of exsiccata Rab, F. Eur. 132 and 246, but also by an inspection in Paris in 1905 of the specimens of Hypocrea alutacea in the herbarium of the Museum of Paris among which were some specimens from Tulasne's herbarium.

An Index to Volumes 1-10, Journal of Mycology, occupied the entire space, pp. 289-387, of the November Number 1904.

The May No., 1905, Journal of Mycology, had the following table of contents: Morgan, A New Chaetosphaeria; Lawrence, Notes on the Erysiphaceae of Washington; Ellis and Bartholomew, Two New Haplosporellas; Beardslee, The Rosy-spored Agarics; Ricker, Notes on Fungi, II, New Species; Bates, Rust Notes for 1904; Thom, Suggestions from the Study of Dairy Fungi; Kellerman, Index to North American Mycology; Notes from Mycological Literature, XV; Editor's Notes.

An interesting new genus is proposed by M. F. Gue'guen in the Bulletin de la Société Mycologique de France, tome XXI, 4e Fascicule, under the title *Gliomastix* (Torula) chartarum n. gen. n. sp.; contribution à l'étude de la formation endogène des conidies. As to name and place in systematic classification he says: Je donne à ce genre nouveau le nom de *Gliomastix* Gr. *gloios* visqueux; *mastix* fouet, qui rappelle l'etat mucilagineaux de ses conidies. Ce genre est aux *Torula* ce que sont les *Gliocladium* aux *Penicillium,* et les *Gliocephalis* aux *Sterigmatocystis.*

In the September (1905) No. of the Journal of Mycology the articles were as follows: Morgan, North American Species of Marasmius; Beardslee, The Amanitas of Sweden; Kellerman, Index to North American Mycology; Editor's Notes.

The following is the table of contents in the Journal of Mycology for November 1905: Morgan, North American Species of Marasmius; Atkinson, The Genera Balansia and Dothichloë in the United States, with a Consideration of their Economic Importance; Sumstine, Another Fly Agaric; Holway, Notes on Uredineae; Sturgis, Remarkable Occurrence of Morchella Esculenta (L.) Pers.; Bessey, Rostovtsev, S. J., Contributions to the Knowledge of the False Mildews (Peronosporaceae); Kellerman, Notes from Mycological Literature XVII; Index to Volume 11.

Uredineae Japonicae V, von P. Dietel, Eng. Bot. Jahrb, 34:583-592, 20 Jan. 1905, lists about four dozen Rusts, a large number of them being new species with Latin diagnoses.

P. Hennings gives a fifth installment of Japan Fungi — Fungi Japonici, V — in Engler's Botanischer Jahrbücher, 34; 592-606, 20 Jan. 1905, enumerating a large number of species, of which about eight are new.

Annales Mycologici, Vol. III, No. 1, Feb. 1905, has the following table of contents: Salmon, Ernest S., Cultural Experiments with an Oidium on Euonymus japonicus Linn. f.; Rick,

Fungi Austro-americano Fasc. II.; Arthur, J. C. Baeodromus Holwayi Arth., a New Uredineous Fungus from Mexico; Holway, E. W. D., North American Uredineae; Copeland, Edwin Bingham, Fungi esculentes Philippinenses; Trotter, A., Ascochyta Salicorniae P. Magnus var. Salicorniae patulae Trotter; Kusano, S., Einege neue Taphrina-Arten aus Japan; Kuyper, H. P., Die Perithecien-Entwicklung von Monascus purpureus Went und Monascus Barkeri Dangeard, sowie die systematische Stellung dieser Pilze; Salmon, Ernest S., Preliminary Note on an Endophytic Species of the Erysiphaceae; Neue Literatur; Referate und kritische Besprechungen.

Ernest S. Salmon gives an account of his cultural experiments with an Oidium on Euonymus japonicus Linn. f. in the Annales Mycologici, Februar 1905, 3:1-15, plate I. The species was indeterminable specifically since no production of perithecia was observed. In the course of the discussion a new term is proposed, namely, *xenoparasitism*, which the author defines as follows: those cases where a form of a fungus which is specialized to certain host species and confined to them under normal circumstances, proves able to infect injured parts of a strange host.

Journal of Mycology, January, 1906, presented this table of contents: Morgan, North American Species of Marasmius; Kellerman, Uredineous Culture Experiments with Puccinia Sorghi, 1905; Arthur, Cultures of Uredineae in 1905; Durand, Peziza fusicarpa Ger. and Peziza semitosta B. & C.; Kellerman, Notes from Mycological Literature XVIII; Editor's Notes.

J. C. Arthur, Baeodromus Holwayi Arth., a New Uredineous Fungus from Mexico, Annales Mycologici, Feb. 1905, [3:18-20], gives an account of an interesting Rust collected by Professor Holway in central Mexico, alt. 3000-3400 metres, at a glance resembling a Leptopuccinia but the promycelium and large sporidia have bright orange contents. A new genus, *Baeodromus* is proposed for this Rust, the name derived from Greek *baios*, short, and *dromus*, course. As to to affinities the author says: "The relationship of these fungi is not clear. The gross appearance is that of the *Pucciniaceae*, and one might at first think that they belonged near the genus *Kuehneola*, yet the germination closely resembles that of the *Coleosporiaceae*. But from the compact structure of the sorus and the external promycelium, I am at present inclined to place the genus near *Pucciniastrum*, among the *Melampsoraceae*."

In Pests of the Ornamental Shrubbery, by C. M. Cooke, Jour. Roy. Hort. Soc. 29:1-25, Pl. XVI-XVIII, Dec. 1904, many species are popularly described and forty-six are illustrated on three colored plates.

EDIBLE FUNGI IS THE TITLE OF A POPULAR ARTICLE with a few text illustrations by M. C. Cooke on pp. 495-510 of the Journal of the Royal Horticultural Society, vol. XXVIII, May 1904.

F. S. EARLE'S MYCOLOGICAL STUDIES, II, in the Bulletin of the New York Botanical Garden, 3:(289)-(312), 14 April 1905, issued first as a Separate 30 June 1904, consists of New Species of West-American Fungi and New Tropical Fungi mostly from Porto Rico. The first contains 33 species and the second 18 species. In the latter the genus Meliola received most species, ten new forms described.

ANNALES MYCOLOGICI, vol. III, No. 5, October 1905, contains the following: Jaap, Otto, Beiträge zur Pilzflora von Mecklenburg; Höhnel, Franz v., Mycologische Fragmente; Rehm, Ascomycetes exs. Fasc. 35; Sydow, Mycotheca germanica Fasc. VIII-IX (No. 351-450); Vuillemin, P., Recherches sur les Champignons parasites des feuilles de Tilleul; Lind, J., Ueber einige neue und bekannte Pilze; Farneti, Rodolfo, Erpete furfuracea delle pere; Bucholtz, Fedor, Verzeichnis der bisher in den Ostseeprovinzen Russlands bekannt gewordenen Puccinia-Arten; Neue Literatur; Referate und kritische Besprechungen.

E. W. D. HOLWAY, NORTH AMERICAN UREDINEAE, gives in Annales Mycologici for Feb. 1905 [3:20-4] descriptions of the following species: Puccinia exasperans (Mexico), P. gouaniae (Cuba), P. aequinoctialis (Cuba), P. distorta (Mexico), P. fumosa (Mexico), also critical notes on several other interesting species — saying that Sydow is in error in giving a new name to Puccinia kansensis (*P. buchloes* 1903); P. buchloes Schofield was published in 1902, a different species; Puccinia scandica Johans, hitherto known only from the alpine regions of Sweden, has been collected in Utah (A. O. Garrett) and in Washington (W. N. Suksdorf).

AMERICAN MYCOLOGICAL SOCIETY, NEW ORLEANS MEETING, JANUARY 1, 1906.

The American Mycological Society held its third annual meeting in connection with the American Association for the Advancement of Science at New Orleans, January 1, 1906.

In the absence of the President, Prof. Charles H. Peck, the Vice-President, Prof. F. S. Earle, presided.

The new constitution recommended by the committees of the Botanical Society of America, the Society for Plant Morphology and Physiology, and the American Mycological Society, as a basis for the union of the three societies, was adopted and the present

officers continued as a committee with power to co-operate in the completion of the details of reorganization.

The following program was presented:

Some Reasons for Desiring a Better Classification of the Uredinales ..... J. C. Arthur
Uredineae of the Gulf States..... S. M. Tracy
Some Peculiar Fungi New to America..... W. G. Farlow
North American Gill Fungi..... F. S. Earle
Lichens and Recent Conceptions of Species (read by title) ..... Bruce Fink
The Affinities of the Fungus of Lolium temulentum..... ..... E. M. Freeman
Peridermium cerebrum Peck, and Cronartium Quercuum (Berkeley) ..... C. L. Shear
Ramularia: An Illustration of the Present Practice in Mycological Nomenclature..... C. L. Shear
Notes on Cultures of Colletotrichum and Gloeosporium ..... P. H. Rolfe
The Occurrence of Fusoma parasiticum Tubeuf in this Country ..... Perley Spaulding
Notes on Pachyma cocos..... P. H. Rolfe
Pencillium glaucum on Pineapple Fruit..... P. H. Rolfe

C. L. Shear, *Sec'y-Treas.*

Mr. Ellis accumulated a valuable working library on systematic Mycology and many issues of exsiccati, a part of which has alreay been disposed of. The books and specimens remaining, given in the following list, are for sale by his daughter.

Books for Sale from the Library of J. B. Ellis:

Berlese, A. N. Monographia dei generi Pleospora, Clathospora e Pyrenophora. 12 col. plates. (Firenze) 1888. $4.

Icones Fungorum ad usum Sylloges Saccardianae accommod.. Vol I. (5 fasc.) II. (5 fasc.) II. fasc. 1-4. 15. fasc. 1. Cum 567 tabulis color. Abellini et Patavii 1894-1902.

Vol. 1. Pyrenomycetes (Lophiostomaceae et Sphaeriaceae Phaeo- et Hyalo-phragmiae. With 184 Taf. — II. Pyrenomycetes (Sphaeriaceae Phoeophragmiae, Dictyo- et Scolecosporae. With 188 Taf. — III. 1-4 Sphaeriaceae Allantosporae. With 127 Taf. — IV. I. Phycomycetes. With 67 col. plates.

Exsiccati. — One Set North American Fungi incomplete, lacking 13 Centuries, 2-5, 7, 8, 20-25, 29. $100.

Exsiccati. — Fungi Columbiani. Cent. 1-XIV. $84.

Exsiccati. — Some odd Centuries of North American Fungi and Fungi Columbiani (unbound); as good in every respect as the Centuries in the complete sets, at per Century. $3.

Ellis, J. B., and *B. M. Everhart.* The North American Pyrenomycetes. With 41 plates. Newfield 1892. $5 net.

Hedwigia 1875-1898, 15 vols. (bound).

Roumeguere's Revue Mycologique, 1879-1901, 9 vols. bound, the last 4 unbound. $30.

Persoon, Mycologia Europaea. 3 vols. 8 vo. 30 colored plates. $15.

Bresadola, Fungi Tridentini, vol. 1 (bound), 144 pp. and 95 colored plates and 2 nos. of vol. 2 (unbound), 81 pp., 90 plates. $20.

Cooke, M. C. Mycographia seu Icones Fungorum. Figures of Fungi from all parts of the world. Vol. I and II: Discomycetes. (All published). London 1875-79. With 113 colored plates. $15.

Cooke, M C. Grevillea complete. 22 vols. bound in cloth. $70.

Cooke, M. C. Handbook (Fungi), 2 vols. 8 vo. 1871. $12.

Corda, Anleitung. $4.

Bonorden's Handbook of Mycology, 336 pages. With 12 col plates. $5.

Currey, F. On the fructification of certain sphaeriaceous Fungi. With 3 plates. (London) 1858. $4.

Currey F. Synopsis of the fructification of the compound and simple Sphaeriae of the Hookerian Herbarium. 3 parts With 8 plates. (London) 1858-65. 4. $5.

Fries, E. Systema Mycologicum. 3 vol. c. indice. Acced. supplem.: Elenchus Fungorum. 2 vol. Lundae et Gryphisw. 1821-32. (M. 34.)

Fries, E. Observationes Mycologicae. Havnae 1824-28. 8. 368 pp. et 8 tab. color. Epicrisis Systematis Mycolog. s. synopsis Hymenomycetum. Upsaliae. bound 20. 1839-39. 8. 628 pp.

Fries, E. Hymenomycetes Europaei s. epicriseos systematis Mycologici Ed. 11. Upsal. 1874. 8. 760 pp. $20.

Stevenson, Mycologia Scotica. 434 pp. $5.

King's, Report (Gov. Survey), Botany. Vol. V. $5.

Wheeler's, Report (Gov. Survey), Botany. Vol. VI. $5.

Dr. George Winter, Die Pilze.

Dr. H. Rehm, Discomycetes.

Masse, Geo, Gasteromycetes.

McBride, T. H., Myxomycetes.

Massee, Geo., Fungi of Cuba, Ceylon, etc.

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W. A. KELLERMAN, PH. D., COLUMBUS, OHIO.

EDITOR'S NOTES.

Owing to the absence of the editor from the latter part of December until April the notice of Mr. Ellis's death was not printed in the January No. of the Journal as it should have been. This second annual Guatemala trip interfered with prompt issuance of the January and March Nos. as well. Apology is due to contributors for delay in the appearance of their papers.

Occasion may here be taken to note both the rapid expansion of Mycology in this country, and the growth of Mycological literature since Mr. Ellis began his work. We desire to give ample credit to the pioneers in systematic Mycology — and no one would fail in this connection to recall the work of the trio now passed, Schweinitz, Ravenel and Ellis. Their work served largely as a guide and incentive to many who have since taken up the work. The general advance in all branches of science in the last half century is also a significant fact.

Yet one other factor may be cited as most potent of all, namely, the establishment of the Agricultural Experiment Stations. Mycology, especially the economic phases, has its peculiar home in these institutions. If space permitted reference would be made to some of the educational institutions, which early took up scientific work on fungi; Harvard of course would be first and foremost in this list. The U. S. Department of Agriculture has been a leader — but the subject is too wide for a brief editorial.

The Journal of Mycology when inaugurated and when Mr. Ellis was the *contributing* editor, was modest in its pretensions — yet most generously supported by the small band of mycologists in this country. Though it succumbed for a time, its revival was a necessity — in spite of the fact that Experiment Station Bulletins and two important botanical journals were furnishing an avenue for publication of the rapidly increasing mycological studies of ardent students. Mr. Ellis did not wish to resume his original place on the title page, yet he was as much interested as in the beginning and made frequent contributions.